THE UNIVERSITY *of* EDINBURGH

An Exploration of Clinical Learning in General Medical Practice: a Case Study

David J Pearson

Doctor of Education

The University of Edinburgh

Presented in 2010

Abstract

This thesis tells a story of a single year in the life of a primary care teaching practice from the multiple perspectives of clinical learners and those supporting learning. This story involves many people from junior medical students to nurses and doctors with twenty years of experience. It explores how they learn as clinicians.

The research takes the form of a single descriptive case study based within a purposefully chosen GP teaching practice in West Yorkshire, England. The case study comprises interview, observational and documentary data collected over a single academic year in 2008/9. Interview data from 33 subjects were transcribed and analysed using thematic analysis within a modified grounded theory approach. The evidence from interview data was strengthened through direct and indirect observation and from documents relating to learning and teaching.

I present a theory of how clinical learning occurs within the chosen practice, and on the nature of being a teaching practice. The findings are presented in the context of the existing literature of learning in this setting and within a theoretical framework of literature on social learning and communities of practice.

Clinical learning appears to occur through engagement and opportunity. Engagement in learning is made up of four elements; recognition, respect, relevance and emotion. The elements are remarkably consistent across learner groups. Opportunity includes the availability, authenticity and immediacy of patient encounters; and the opportunity to learn with and from peers and professional colleagues.

The research findings are consistent with existing work on social learning from other settings, but add to the literature. Engagement appears possible through recognition, relevance and respect and in the absence of meaningful participation, belonging or a clear trajectory of learning. Meaningful opportunities for clinical learning include those where patient encounters are made powerful through the authenticity that arises

from the social and personal context of illness, and from the immediacy of hearing patient narratives *de novo*.

The teaching practice studied in the case study is not dissimilar to others described in the literature of primary care learning, but this case study offers a far more detailed exploration of the elements which contribute to learning in the practice. These elements include strong whole practice support for learning, a skilled and committed clinical and educational workforce and a more indefinable additional element which is best summarised as a passion for education.

Dedication

For Thomas
whose chance to learn was cut short.

Acknowledgements

My main thanks are due to the staff and clinicians at Sunnybank Medical Centre for offering me the chance to undertake this study and for their unfailing hospitality.

I gratefully acknowledge the help and support of my supervisors Professors Carolin Kreber and Allan Cumming in the submission of this thesis, and that of Professors Bob Lingard and Lindsay Patterson and other tutors and staff at the School of Education in Edinburgh.

I also acknowledge the support and patience of my work colleagues at the University of Leeds and NHS Bradford and Airedale. Particular thanks are due to Dr Peter Dickson for encouraging and enabling me to pursue this doctorate, and to Professors Allan House and Robbie Foy for giving me the time to complete it.

Various people have given me practical support along the way. Especially thanks are due to Catherine Smith and Lynn Stinson (previously at NHS Bradford & Airedale), Jane Adams and Michelle Haigh at the University of Leeds; Catherine Dobson for her help with transcribing interviews; and Liz Neilly for her support during the literature search.

Dr Beverley Lucas has worked with me for many years and has been unfailingly there with advice on qualitative methods and has helped hugely during this project with data collection and as a critical friend. Many thanks to her.

Finally thanks are due to family and friends who have suffered in my pursuit of this piece of work, and who will be delighted to see it finally submitted.

CHAPTER HEADINGS AND CONTENT LIST

LIST OF TABLES, BOXES AND MODELS

Chapter 1
Introduction

This thesis aims to explore the nature of the clinical learning environment in primary care, and what it means to be a 'teaching practice'. The research is based upon the educational theory of social learning, especially the concept of 'communities of practice' developed by Lave and Wenger (Lave and Wenger, 1991, Wenger, 1998). This introduction presents my personal motivation for undertaking the work.

1.1 Motivation for conducting the research: personal perspectives

I have been a medical practitioner for twenty years, a general practitioner (GP) for fifteen and closely involved with clinical learning in primary care for ten. As a medical student at the University of Edinburgh I enjoyed an inspirational GP placement with Dr Ian Ross and colleagues in Leith. Leith was then a mixture of working class families, drug addicts, prostitutes, and the beginnings of a wealthy urban elite. All were living and being cared for alongside each other. The practice was obviously caring, the team ethic strong, and the medical variety astonishing. What struck me most was the sense of involvement with the community and with patients' lives. I was involved with discussions about patients in the consulting room, the coffee room, on visits and in practice meetings. I consulted patients alone. I received personal tuition and feedback. I left with a strong impression of clinicians who were passionate about their work, enjoyed their lives and were making a contribution to society.

After graduation, I decided to pursue postgraduate training in general practice and enjoyed two very different traineeships. What distinguished them was the ethos of the practices, both supportive of learning but one tightly knit and close to its community and the other high quality but rather more functional. After training I became a full time GP in a well established training practice and immediately became involved with informal teaching of GP registrars and nurses, and soon with teaching medical students.

I left full time practice in 2002 to take up an educational position, albeit with continuing clinical commitment. I have continued to teach and supervise medical students, nurses, nurse practitioners, foundation year doctors and GP specialist registrars in the workplace as well as pursuing my own professional development. In my educational role I have taught medical students, GP specialist registrars and postgraduate GP learners. I developed opportunities for other professional learners in primary care settings, helped deliver inter professional learning, and developed, supported and assessed teaching practices in general practice. I have published work on inter professional learning and learning medicine in primary care.

My current role as Head of Learning and Teaching at the Academic Unit of Primary Care in Leeds involves developing, supporting, organising and monitoring undergraduate teaching placements in primary care; developing "teaching practices"; providing education and support for primary care tutors; championing the role of primary care in the medical curriculum; developing collaborative learning with professions allied to medicine and postgraduate learning programmes for all involved with primary care. I continue to be involved with academic study of clinical learning in various areas, including consultations, professionalism and workplace learning.

I can therefore claim a wide knowledge of my research subject, something which offers insight but obviously means I am far from a neutral or dispassionate observer of clinical learning in my chosen setting.

1.2 Motivation for conducting the research: contribution to knowledge

Healthcare is increasingly being delivered in primary care, by a healthcare team made up across specialties. Learning across all healthcare professions is mirroring this change of care delivery by moving into the community. There is a pressure for more clinical placements at undergraduate and postgraduate level in primary care and general practice, and pressure to increase opportunities for inter professional learning. Most of these placements and learning opportunities will occur in GP 'teaching practices'. The clinical context for learning is therefore an important one.

In education there is an increasing literature about the theory of social learning, including learning within ‘communities of practice’. These ideas appear very relevant to my chosen area but the theories do not generally involve transient learners (such as undergraduate clinical students), established learners (such as clinicians concerned about their professional development) or an environment where the *raison d’etre* for the practice and its staff is clinical rather than primarily educational. How these ideas from educational theory translate into a clinical environment would therefore seem a rich area of study.

My research aims to contribute to the literature on clinical learning in two ways:

1. To help develop the literature of learning in clinical settings, especially in the context of social learning, and learning in communities of practice.

2. To enhance understanding of the nature of clinical learning within a primary care “teaching practice” at a time when undergraduate and postgraduate placements are increasing and inter professional interactions are encouraged.

In summary, my knowledge of the field, and the literature, suggested more research in this area was needed. The research presented will provide new insights into how clinical learning occurs and be of interest to all involved with the education of clinicians in primary care at undergraduate or postgraduate level; whether policy makers, curricula leads, administrators, teachers, or students.

Chapter 2

Background:

Primary care, general practice and teaching practices

This section offers a contextual background for the research. It covers four areas: an historical, policy and professional context for clinical learning; an overview of the clinical learning environment in primary care and general practice; an overview of "teaching practices"; and a consideration of future challenges in clinical learning.

What constitutes 'community', 'primary care' or 'general practice' remains undefined in much of the literature, and can cause confusion. I have distinguished between these areas where possible within my text, as the aims and objectives for teaching in each area may differ.

2.1 An historical, policy and professional context

The history of medicine until the 19th century was of community based practice, with a powerful doctor patient relationship, and little "science" to counterbalance the pastoral role of the clinician. Advancements in technology allowed a new scientific approach to diagnosis and treatment. Medical education followed the scientific tradition, and the patients, into the hospital. For two centuries a tradition of apprenticeship within "teaching hospitals" dominated medical student training. Nurse education has been even more hospital based than medicine, with the whole undergraduate curriculum based there until very recently. Other allied health professions were similar. Physiotherapy, pharmacy, and dentistry were all apprenticeship based training with clinical experience almost exclusively in hospitals.

Recently however the pendulum has begun to swing back. Over the last forty years primary care and general practice have become respected within medicine, with the increased professionalisation of general practice being one feature of this trend. In recent years medical student numbers have doubled, and the proportion of primary

care teaching increased by 50% (Jones and Stephenson, 2008, SAPC, 2002). In 2001 established schools taught on average 9% (range 4-20%) of the medical undergraduate curriculum in primary care (SAPC, 2002); by 2007 this figure was 13% (2-30%) (Jones and Stephenson, 2008). Overseas a similar shift is occurring with a shift towards new community based teaching programmes and away from the hospital setting (Boaden and Bligh, 1999, Deutsch, 1997, Rabinowitz et al., 2001) .

A similar shift in clinical learning is happening elsewhere, including within nurse and allied health professional education, albeit hampered through issues of underfunding and access to placements.

There are three broad drivers for this change:

Pragmatism: The move towards a primary care led NHS is one factor which has led to increasingly specialised hospital care and a reduction in hospital beds and shorter patient stays (Fine and Seabrook, 1996, Habbick and Leeder, 1996). Opportunities for bedside teaching are diminishing at the very time more teaching is required (El-Bagir and Ahmed, 2002). There is a pragmatic need for more primary care placements to replace lost opportunities for hospital teaching.

Policy: Society has changed rapidly over the last forty years. The public is better educated, better informed, and less accepting of a professional hierarchy in health (Eraut, 2004). Government policy has promoted patient choice and empowerment, increased consumerism in the health service and a challenge to the role of the professions (Department of Health, 2006, Department for Education & Skills, 2005)**.** The move to a "primary care led NHS" can been seen in the context of these wider changes (Department of Health, 2000).

The NHS Plan for a primary care led health service (Department of Health, 2000) required an extra 2000 GPs at a time many were scheduled to leave the profession, and when only a quarter of students appeared interested in general practice as a career (Bligh, 1999, Goldacre et al., 2004). Increasing medical student exposure to

primary care teaching positively influences career choice (Howe and Ives, 2001), though some suggest the effect is transient (Morrison and Murray, 1996).

The undergraduate medical curriculum produced by the General Medical Council (General Medical Council, 1993, General Medical Council, 2003, General Medical Council, 2009) reflected changing attitudes and policy. "Clinical education must reflect the changing patterns of healthcare and provide experience in a variety of environments including hospitals, general practices and community medical services" (General Medical Council, 2003 p.12). Medical students should "understand the social and cultural environment in which medicine is practiced in the UK", "have opportunities to interact with people from a range of social, cultural and ethnic backgrounds" and "be able to communicate effectively with individuals regardless of their social, cultural or ethnic backgrounds" (General Medical Council, 2003 pp.10, 50 & 7) . Medical students need to understand their patients' illnesses in the context of their lives (General Medical Council, 2003). The latest version of Tomorrow's doctors, just released, reemphasises these broad goals (General Medical Council, 2009). They may be impossible to achieve without moving a substantial amount of teaching into primary care (Howe et al., 2002).

Nursing and other allied health professions (AHPs) have followed a similar journey, with an increased emphasis on community and practice based nursing, and recently practice based training. Government policy is to increase community based education for nurses and other non medical health professionals (English National Board for Nursing Midwifery and Health Visiting & Department of Health, 2001).

Professional: Over the last forty years the medical profession has changed, with general practice in the UK gaining an enhanced status and importance. This culminated in a separate professional body (1952), independent professional assessment (1976), a compulsory professional end point examination (2007) and prolonged specialist training comparable to other specialties (2007).

Community based and general practice nursing have also seen significant development that builds on standards of proficiency for pre-registration nursing

education (Nursing and Midwifery Council, 2004), where student nurses now have enhanced clinical experience within community settings. There are a number of programmes leading to title of 'specialist practice' including general practice nursing, advanced practice nurses or nurse practitioners, community mental health nursing, public health nursing (health visitor) and district nursing with integrated nurse prescribing. Roles such as community matrons and consultant nurses have also evolved in response to changing patterns of health care delivery (Nursing and Midwifery Council, 2009).

2.2 An overview of primary care and general practice

I have outlined the historical, political and professional reasons behind the shift towards clinical learning in primary care. This section gives an overview of the clinical learning environment in primary care and general practice, from a UK perspective.

Primary care can be defined as first contact, accessible, comprehensive and continuing care of health problems in the community provided across all ages, both sexes and all types of illness. Within a UK context primary care includes the care provided by general practitioners, practice nurses, nurse practitioners and associated practice based staff; but also community nurses, midwives, pharmacists, opticians, dentists and other community based health professionals.

General practice is only a part of primary care, albeit a major provider of community health care. Care is managed under contract to primary care trusts in England and Wales, and health boards in Scotland. General medical practitioners are defined by their professional body as:

> Personal doctors, primarily responsible for the provision of comprehensive and continuing medical care to patients irrespective of age, sex and illness. In negotiating management plans with patients they take account of physical, psychological, social, and cultural factors, using the knowledge and trust engendered by a familiarity with past care. They also recognise a professional responsibility to their community.

> GPs exercise their professional role by promoting health, preventing disease and providing cure, care or palliation. This is done either directly, or through the services of others according to health needs and the resources available within the community they serve.
> RCGP (2009)

GPs work increasingly closely with generalist and specialist nurses (health care assistants, practice nurses and specialist disease nurses), nurse practitioners (nurses with postgraduate qualifications allowing them to assess and treat a range of health conditions) and other professionals (e.g. community matrons, pharmacists, physiotherapists). A majority of GPs (82%) are partners who own and manage the business, with the remainder directly salaried (The NHS Information Centre, 2009). Salaried doctors are a recent phenomenon, encouraged in the 2004 GMS contract and now an important alternative to partnership. Most salaried GPs and practice nurses are employed directly by GPs with community nurses, midwives and pharmacists largely externally funded and managed.

Recent government policy has both promoted primary health care in its widest sense, and emphasised its centrality in UK health care provisions (Department of Health, 2000, Department of Health, 2006). It has also challenged the central role of general practice providers in favour of diversification of provider (Department of Health, 2008). This has encouraged a new model of having clinicians managed by a central organization whether NHS or private.

UK primary care is unusual in being highly organised, free at the point of delivery, nationalised (most countries have social insurance or private systems) and managed through a quality framework (Department of Health, 2009). This makes it respected across the world, but may influence the relevance of findings from this study in a global context.

As much of UK primary care is delivered from small, closely knit, self managed and independent general practices it is theoretically possible that clinical learning in this environment will occur via the interactions, engagement and participation which form the central part of theories of social learning and communities of practice.

2.3 An overview of 'teaching practices'

I have given an historical context for the shift towards a primary care led health service, and a picture of the current environment. In this section I say a little more about teaching practices, both from the literature and from my own experiences as an educator. My intention is not to provide a definitive overview of UK teaching practices, but rather to place my research in context.

I have worked with teaching practices at various levels; as a practitioner and educator; within undergraduate and postgraduate medical education; from an inter professional learning perspective; and at policy level with PCT and SHA colleagues. The term "teaching practice" is generally used in a medical context, and usually refers to practices predominantly concerned with the vocational training of general practitioners (also referred to as "training practices") or undergraduate medical education. Practices involved with nurse or nurse practitioner training may be referred to as teaching practices or more commonly "teaching placements".

There is no single definition of what constitutes a "teaching practice". A working definition could be "any GP surgery which takes one or more type of clinical learners on either short or long term placements". If we accept this definition then perhaps 40% of UK practices are "teaching practices". Other practices will offer placements to student nurses, nurse practitioners in training, community pharmacists and similar, though these are normally practices where medical teaching and training also occurs.

Table 1: Learners within a 'typical' UK teaching practice			
	% age of practices (UK)	**Typical number at time[1]**	**Typical number /year**
GP Specialist Registrar	25[1]	1 or 2	1, 2 , 3 or 4
Foundation year doctor		1 or 2	3 to 6
Undergraduate medical student	33[2]	1 to 4	3 to 20
Undergraduate nursing student		0-1	0-4
Nurse practitioner registrar		1	2
Practice nurse trainee		1	1 or 2
HCA in training		1	1 or 2
Note: Figures are for illustration from various sources. No source of average numbers was available.			

A "typical" teaching practice would consist of a group of general practitioners supported by a clinical and administrative team providing NHS based general medical services. It might have a range of learners: "transient" learners (i.e. undergraduate medical or nursing students on short placements), "vocational" learners in postgraduate training (foundation year doctors, GP specialist registrars, nurse practitioners) and "embedded" learners (those in established clinical practice who undergo continuing professional development, often practice based). Most clinical learners will also teach at some level, either in a formal role as a clinical tutor, mentor or trainer, or an informal role with peer learning. All clinicians will also be involved with patient education within consultations, or at a public health level. All clinical teachers will also be learners, often via their need for professional updates.

Whilst teaching practices may be defined by their educational role, they are a clinical environment with a main rationale of caring for patients. UK general practices have a

[1] Yorkshire Deanery 2009

[2] Jones & Stephenson 2008

contract with primary care trusts (or their Scottish equivalent), which does not make provision for educational activity. An exception are the new multi professional community health centres (Department of Health, 2008). Clinical education may provide financial and other rewards to the practice, but would never subsume clinical work. The learning environment is thus somewhat different to hospitals (the hospital is paid to provide placements and clinicians have contracted time for teaching) and schools or colleges (where much work on social learning is based); though arguably similar to that in other professional workplaces such as industry, law firms etc. These similarities and differences and their effect on the clinical learning environment merit exploration.

2.4 Future challenges in clinical learning

I have provided an overview of the clinical learning environment in primary care, and the nature of teaching practices. I close with a personal viewpoint of current challenges facing primary care and general practice.

Clinical: The continuing move of healthcare into a primary care setting will bring with it the need for a larger and more skilled primary care workforce, and an increase in opportunities to learn in this setting (more patients, more follow up, more complex care in the community). Hospital placements in all but specialised training may become an exception, not the norm.

Organsational: It appears increasingly unlikely that general practice will remain the main provider of primary health care. The government is seeking diversification. Competition will inevitably lead to wholesale changes in provision. The development of community health centres offering less personalised but more comprehensive care (in terms of range of professionals and services) are one example of this approach (Department of Health, 2008, Department of Health, 2009).

Financial: The great majority of teaching practices are privately owned by the clinicians who run them. Education within them is voluntary, contracted for independently of external pressures. This model of primary care provision is under threat from the “industrialization” of primary care, with increasing management and

regulation (Iliffe, 2008). The small scale, independent and entrepreneurial nature of general practice might be lost as practices are subsumed into larger conglomerates or taken over by companies running them for a profit. The clinical learning environment may differ in settings where learning is delivered by salaried staff.

Professional: The future of professions within primary care is unclear. The GP profession is strong and confident with a new membership examination, a proposal to extend professional training, and vibrant leadership. However recruitment is poor and the challenges outlined above may lead to fragmentation of the GP role and a loss of core elements (e.g. continuity, patient focus and holistic comprehensive care). Other professionals are by contrast in the ascendancy, including practice nurses, nurse practitioners, community matrons and community pharmacists.

The loss of GP position and power may represent a healthy end to medical paternalism and bring in its wake more opportunities for clinical learning across other professions, and the opportunity for a true inter-professional approach based on equality. It may also threaten the clinical learning environment as it currently exists.

Chapter 3

Literature review:
The learning environment in primary care

This structured review of the literature seeks to provide a context for my research and justify the pursuit of this thesis. It provides a theoretical framework on which to explore clinical learning within primary care, based upon social learning and 'communities of practice' (Lave and Wenger, 1991, Wenger, 1998).

The literature review is divided into three sections:

- Conducting the literature review, an exploration of process
- Adult learning theory and its relevance to clinical learning
- Social learning theory, and communities of practice

3.1 Conducting the literature review

3.1.1 Scope of the literature review

This structured review of the literature sought information relating to clinical learning (i.e. the undergraduate, postgraduate or continuing education of clinicians including doctors, nurses or allied health professionals) within the context of primary care or general practice. A majority of this literature concerns postgraduate general practice education and training, with a substantial minority of research on undergraduate medical education. There is less work on non medical primary care clinicians; until recently little of this education occurred outside hospitals.

Much work has been published on clinical learning which is of potential relevance to primary care but not based in that setting. This work is included where it is based within my theoretical framework i.e. social learning or communities of practice.

3.1.2 Search strategy

My search included published literature in books, peer reviewed journals, grey literature (via relevant databases), and from governmental and professional documents identified mostly via a secondary search of the published literature. The library book catalogue was searched using the key words listed in Box 1, and the Medline database using the subject headings and key words outlined in Box 2. The same search strategy was employed (with appropriate modifications) to search other healthcare and educational databases, namely:

Australian Educational Index (AEI); British Educational Index (BREI);
Cumulative Index to Nursing and Allied Health Literature (CINAHL);
Educational Research Index of Citations (ERIC); EMBASE
Health Management Information Consortium (HMIC).
The "grey literature" was sought first by searching two further databases:
Index to theses and Proquest dissertations and theses

Box 1 Books: key words and search strategy

Primary Care; General Practice; Family Medicine; Community Health Care;

AND ONE OF:
Undergraduate medical education; Medical students; Student doctors; Community based education; Community based medical education; Community placements;

Postgraduate medical education; general practice vocational training; general practice specialist registrars or general practice registrars;

Practice nurse education; nurse practitioner training in primary care or general practice; community nursing;

Community pharmacist education or training;

AND ONE OF:
Communities of Practice; Learning Environment: Learning Culture: Learning Climate; Workplace learning; Workbased learning.

Exclusions: The database search (April 2009) was limited to English Language papers, and papers since 1993 or nearest equivalent (the year of publication of 'Tomorrow's Doctors' which first suggested an expanded role for community based medical education; General Medical Council, 1993)

Box 2 Subject headings and key words for Medline search

Family Practice
General Practice
Primary Care
Primary Health Care
Community Medicine

AND ONE OF:

Medical Student(s)
Student Doctor(s)
Undergraduate Medical Education

Postgraduate Medical Education
Vocational training, General Practice
Registrars, General Practice
Specialist Registrars, General Practice

Practice Nurse(s)
Nurse Practitioner(s)
Community Nurse(s)
Community Pharmacist(s)

AND ONE OF:

Communities of Practice
Learning Environment
Learning Culture
Learning Climate
Workplace Learning
Workbased Learning

Other sources: The review has expanded from the structured approach above as I followed leads from articles, from conversations in corridors and at conferences, from colleagues and fellow researchers, and from the suggestions of my supervisors. I have moved beyond the literature directly concerned with clinical learning, into more general ideas of learning, teaching and education in a wide variety of contexts.

3.1.3 Reflections on the search strategy

The above approach to the main clinical databases is likely to have identified the most important academic papers published in English for the time frame and search parameters mentioned. The approach may have excluded seminal older studies, and a potentially large contribution from non–English publications. The reliance on academic databases means a variety of non peer reviewed documents from NHS or professional sources (e.g. policy documents) may be missed, though these should be captured via the secondary search. Concentrating the search strategy on academic literature relating to clinical education risks exclusion of relevant educational papers from comparable workplace settings, or of relevance as background theory as to the nature of learning. It is hoped this was overcome through the secondary search and through discussion with colleagues from a variety of backgrounds.

3.2 Adult learning

There are many possible starting points to review adult learning, but the contribution of John Dewey seems an obvious one. Dewey's theories underpin much of contemporary education. In the context of clinical learning his ideas of basing education on lived experiences and on learning through participation seem especially relevant, particularly as they underpin work on communities of practice.

Dewey believed that education was fundamentally a social process, in which learners should actively engage with teachers in order to learn (Dewey's ideas are sourced throughout the thesis from Hildebrand, 2008). This active engagement would involve situating learning within the lived experience of the learner. It provides a theoretical basis for ideas on situated learning (Lave and Wenger, 1991), identity development (Baxter Magolda, 1999, Becker et al., 1961, Benner, 1984, Melia, 1987, Wenger, 1998) and workplace based learning (Evans et al., 2006, Fuller et al., 2005, Fuller and Unwin, 2003, Hodkinson et al., 2007, Hodkinson et al., 2008).

Dewey also emphasised a moral purpose for education, and rejected the idea of education for its own sake. He believed education should change learners and help

them contribute more fully to society. This will be achieved through the development of a critical attitude and an engagement in community. This philosophy of education can still be recognised in a more developed form in authors discussing the nature and benefits of transformative or emancipatory learning in adulthood (Cranton, 1994, Freire, 1996, Habermas, 1970, Mezirow, 1991).

I will explore these ideas further, particularly in the context of clinical learning.

3.2.1 Experiential learning and reflective practice

Dewey emphasised the importance of meaningful experience as a basis for education, but specifically the need for reflection on that experience. Dewey suggested two elements which make experience meaningful: continuity (building new experiences on previous ones in a spiral curriculum) and interaction (between the person and the environment). Argyris and Schon (1974) suggested that people have mental maps which help construct a picture of how they would behave in real life situations ('learning in theory'). Critical reflection on real experiences helps challenge these mental maps and develop 'learning in practice' (Argyris and Schon, 1974). Schon's later work on educating the reflective practitioner has been particularly influential in clinical learning (Schon, 1983). Nursing education and more recently medical education have leant heavily on his ideas of 'reflection on action' (reframing previous experiences through critical discussion and thought) and 'reflection in action' (critical thinking regarding lived experiences, e.g. clinical encounters) (Schon, 1983).

Dewey's ideas also form the basis of Kolb's work on experiential learning (Kolb, 1984). Kolb suggested that learning occurs during a cycle of experience, reflection, conceptualisation and active experimentation. His learning cycle provides a theoretical framework for much clinical education, particularly postgraduate medical learning in primary care. Others have built upon Kolb's work; firstly to widen it and suggest learning might occur in various domains including skills and attitudes (Jarvis, 1987) and secondly to suggest learning will only occur if there is an

emotional reaction to lived experiences, and engagement with the experiences (Boud et al., 1985, Boud and Miller, 1996).

These ideas of experiential learning and reflective practice are directly relevant to clinical learning in a general practice setting:

- They form the educational basis for most current professional educational curricula, across nursing and medicine, and link to ideas of reflective practice in professional learning e.g. the development of "clinical wisdom" (Benner et al., 1999). This work from a critical care nursing perspective explored the concept of how clinicians develop "thinking –in –action". It mirrors Schon's ideas of "reflection in action", the development of intuitive learning that distinguishes experts and novice learners (Schon, 1983). Because professional clinical activity is so varied and hard to define it is not feasible to explain how learning occurs with rational-technical models, or reduce learning to simple elements of reflection on individual experiences (Benner et al., 1999). Clinical learning is better explained through the more complicated picture of thinking-in-action, or reflection in action (Benner et al., 1999, Schon, 1983). Both processes involve the challenging of prior theoretical knowledge or experiences with new experiences that (given critical thinking) will trigger learning.

- It is not just the richness of experiences which is valuable in the clinical setting, but their relevance to the learner and how they are placed in context either through self reflection or facilitated critical reflection. This builds on Dewey's suggestion of participation as a key to meaningful learning and the concept of active participation is central to the idea of situated learning and communities of practice. It is reinforced in the clinical setting by work suggesting that students' or interns' supported participation in clinical activities is crucial to effective learning (Dornan et al., 2007, Sheehan et al., 2005, Teunissen et al., 2007). Dornan suggested a model of experience based learning based on a hospital study of 24 medical students. He suggested that supported participation in clinical activities was crucial for learning to occur: with participation encouraged through

being welcomed into the clinical team, encouraged to participate and through appropriate challenge. A lack of these factors on placement led to disengagement and inhibited participation and learning (Dornan et al., 2007). Boor and colleagues, again looking at hospital based medical students, also suggested participation as the crucial construct for learning and suggested various factors in the learning climate of a clinical workplace which encouraged participation including institutional factors (encouragement) and student factors (willingness to engage) (Boor et al., 2008).

- Educational theory relating to experiential learning and reflective practice form a useful basis to assess the literature on clinical learning in primary care. For example, medical students believe they get more clinical exposure and more experienced tutors in a general practice setting than in hospitals (Worley et al., 2004). This may help explain the general satisfaction with this learning environment. Within primary care students value the opportunity for active learning (asking questions, taking an active role in learning) and active teaching (being challenged, pushed, given autonomy, seeing interesting cases) (Fernald et al., 2001). GP interns in Ireland considered they had more relevant clinical exposure and better support (formal and informal) than in equivalent hospital posts. The key difference they noted, however, was having responsibility for patients, and this was considered an important motivator for learning (Cantillon et al., 2008). Other studies, including my own research, suggests students in primary care get limited exposure to dramatic cases (Lucas and Pearson, 2005), arguably *reducing* the meaningful experience needed to trigger reflective learning.

3.2.2 Andragogy and self directed learning

Malcolm Knowles developed Dewey's ideas as he developed a theory of adult learning termed "andragogy" or the art and science of helping adults learn (Knowles, 1980). His work is particularly relevant when looking at transient student learners in the clinical setting. Medical and nursing students may be considered as "adult

learners", but Knowles' assumptions underlying andragogy are worth exploring. These are that adults have a rich reservoir of experiences, are motivated to learn by internal factors, and are largely self directed. I would hesitate to consider these assumptions true for the junior learners I work with. In early clinical years students often suffer from having little experience and are best motivated by external forces (not least examinations). This is in marked contrast with, for example, North American medical students who are all graduates, and who arrive with accumulated life experiences and very different motivation. These students engage much more easily in a clinical learning environment.

All this is highly relevant in a clinical environment, where finding meaningful experiences and allowing participation might be a key to learning. Not all experience leads to learning. Wenger (1998) discusses the need for a manageable gap between experience and competence to allow meaningful learning and full participation.

Knowles' ideas of andragogy have been criticised, especially for their focus on the individual learner (rather than the social and cultural context for learning). Knowles suggested that adults have an inner need to be self directed, but suggested they needed support to develop the skills to allow this. His work is often misinterpreted however as suggesting all "adults" are accomplished self directed learners. This has led to the central place in clinical curricula for self directed learning, but sometimes treating junior learners as adults in a clinical learning environment may inhibit learning rather than encourage it.

3.2.3 Ideas from the humanist perspective in education

I have introduced the idea of why lived experience may be vital for clinical learning, and that reflection on this experience may allow learning to occur. This section explores ideas from the humanist perspective: i.e. adults have an innate desire to learn, and the role of educators is to facilitate this learning. Education should be geared towards 'self actualisation', and creating a conducive learning environment.

These ideas relate back to Dewey who believed participation is the cornerstone of learning, and forwards to explain how learning might occur in the clinical context.

Maslow's ideas concentrate on learners' innate desire to understand, and have been interpreted that educators should ensure basics of the educational setting need to be in place (safety, comfort, control) to allow the learner to do what will come naturally given the right support, experiences and facilitation (Maslow, 1970). Rogers (1967) considered that learners require an element of 'unconditional positive regard' or 'acceptance' which alongside a safe physical environment will provide the emotional security which allows learning to flourish. Rogers' work focussed on what he terms 'significant learning' or learning that will lead to personal growth (Rogers, 1967). Significant learning would involve an involvement of the learner in the learning event, learning valued by the learner, learning which makes a difference, and learning where there is a relationship between the meaning of experiences and the learners' own journey. These ideas are highly relevant to clinical learning. Certainly two separate studies of clinical learning within Dutch hospitals suggest that clinical learning is likely to be inhibited by a lack of encouragement, support or organisation (Boor et al., 2008, Dolmans et al., 2008).

In the general practice setting the small scale of the organisation should allow individualised learning approaches. However, medical students often start medical school with a negative perception of general practice. Qualitative research from Manchester suggests this is increased by a negative portrayal of GPs both from hospital colleagues and the hidden curriculum of using hospital based clinical cases (Firth and Wass, 2007). Against this background the overwhelmingly positive attitude to learning medicine in primary care and the quality of teaching on offer is striking.

Many studies of student placements in primary care suggest that students consider the quality of teaching to be excellent, even where students were unenthusiastic about the primary care experience itself (Block et al., 1996, Kalantan et al., 2003). Manchester students, considering individual primary care placements in years 3, 4

and 5 of their curriculum, defined the qualities of a good teacher as showing enthusiasm, involving students in active learning, giving students tasks and responsibilities, being well organised, protecting time for teaching, and being up to date (Silverstone et al., 2001).

Can the high quality teaching seen in individual placements translate to group teaching? Studies of group teaching with first and second year medical students showed that many considered GPs to be better teachers than hospital doctors, demonstrating more interest, more enthusiasm and giving better feedback (Johnston and Boohan, 2000, O'Sullivan et al., 2000). Qualitative research with final year medical students suggested the ability of GPs to deliver high quality, organised and enthusiastic teaching was transferable to group placements (Lucas and Pearson, 2005).

There is evidence, therefore, of a supportive learning environment in primary care with interested teachers who respect and value their students. From a humanist perspective this would help promote learning regardless of the quality of the interaction of clinical learning experiences with patients.

3.2.4 Transformative and emancipatory learning

John Dewey's philosophy of education was founded on a principle that education should have a moral purpose, and lead to change in the individual and society.
These ideas influence two further schools of educational theory. One is Mezirow's ideas of transformative learning, or learning that occurs through the construction of new meaning through critical reflection on experiences (which allow previous meaning to be transformed) (Mezirow, 1991). An overlapping concept is that of emancipatory change, linked to Habermas' ideas of critical theory, and suggesting that education should lead to personal liberation and social change through the challenging of prior assumptions (Freire, 1970, Habermas, 1970).

Piaget believed that we learn through testing experience against prior frames of reference, or 'schema' (1972). Mezirow (1991) suggests learning in adults occurs through critical reflection on the assumptions underlying our knowledge, experiences or perspectives, which may lead to a transformation of previously held construct systems or frames of reference. Learning is most likely to occur when based around relevant life experiences, in an environment with opportunity and support for critical reflection, self examination and the formulation of a new "frame of reference".

Mezirow's work is directly relevant for clinical learning. How can educators ensure for junior or transient learners that experiences are relevant to their trajectory of learning? How can learning occur for clinicians if it is classroom based and divorced from the relevant clinical setting? Clinical learning environments are essential if transformative learning is to occur, but whether learning occurs will depend on the nature of the experience, the context, and the ability of the learner to reflect and act upon their experiences. Mezirow's ideas go beyond those of Schon's ideas of reflective practice as they emphasise transformation, empowerment and emancipation of the learner (Mezirow, 1991, Schon, 1983). They do link with the idea that learning occurs as new meaning is negotiated through social interaction, a theme central to 'communities of practice' (Wenger, 1998).

Cranton (1994) has re-interpreted Mezirow's ideas, looking at their practical application for educators. The educator should maximise experiential learning, but also engage closely with learners to foster critical reflection and group interaction. These ideas are highly relevant in a clinical setting, where experiences may be rich but skilled facilitation might be needed to ensure learning occurs from these experiences. Cranton observes that educators need to engage more as equals than is traditional in many teaching settings, so that they might empower their learners. They might, for example, need to minimise the personal power arising from their position as clinicians. The background of the clinical tutor, and their relationship to colleagues or even patients, might prove important in considering their ability to empower their learners at various levels of experience (Cranton, 1994, Mezirow, 1991).

Finally Cranton considers 'authenticity' as being essential for teachers who wish to encourage transformative learning (Cranton, 1994). Authenticity has been interpreted in many ways. Cranton uses the term in the sense of openness; of the educator being responsive to learners needs, being self aware, and acknowledging and sharing doubts (Cranton, 1994). This is of relevance to the clinical learning environment in general practice, and the relationship of learners and tutors in this setting. [3]

Baxter Magolda (1999) emphasises three principles of a constructive developmental pedagogy that she suggests as conducive to transformative or emancipatory learning:

- Validating the student as a knower (Respect for the student, their experience and perspectives)
- Situated learning in the students' own experience (Connecting to real experiences, relevant to the student, arising from their lives)
- Learning as mutually constructing meaning (Student and teacher learn together; meaning and knowledge are continually created by interaction).

There are some parallels between the assumptions informing constructive developmental pedagogy and Cranton's understanding of authenticity in teachers (Cranton, 1994), i.e. that of self awareness, student centeredness, and "openness".

[3] *A note on authenticity. Cranton's use of the term authenticity is only one of many. She suggests authenticity relates to self awareness and responsiveness; elsewhere she uses it to represent genuineness in educators (not pretending to be someone or something which you naturally are not). In my later chapters I use authenticity as meaning reality: real patients, real clinical encounters, patient experiences based in a real world framed by their transparent social context (of family, work, housing and financial realities). This latter definition, developed from analysis of data, is in contrast either to simulated or classroom learning experiences, or experiences of patient encounters outside of this transparent social context e.g. hospitals, where the presenting narrative may have been rehearsed or diluted through investigation and interpretation.*

3.2.5 Clinical learning in primary care and general practice

How do these theories of adult learning apply to a clinical context in primary care? I will consider this first from the perspective of students' learning from clinical experiences and secondly the perspectives of primary care clinicians as educators.

Experiential learning in primary care

A variety of studies from primary care and general practice explore the perceptions of medical students as to the relevance of their experiences to their overall learning.

Primary care placements allow students to learn about the social impact on health, develop a holistic view of health care, an understanding of team working and respect for patients (Howe and Ives, 2001, Kaplan et al., 1999, O'Sullivan et al., 2000, Silverstone et al., 2001). In London, student pairs learning clinical method believed seeing patients in their own home helped them understand the social and psychological impact of chronic disease (Murray et al., 1997). Medical students perceive that early clinical experience in primary care is appropriate to learn professional issues such as patient autonomy, psychosocial issues and communication skills (O'Sullivan et al., 2000).

Primary care students appreciate the opportunity to learn the significance of uncertain symptoms and acquire an ability to distinguish common and rare disease (Dahan et al., 2001). The nature of primary care with its wide variety of patients, emphasis on chronic disease management and excellent clinical records systems offers opportunities for high quality relevant teaching (Gormley and Collins, 2007). These placements offer opportunities for long term patient follow up, and exposure to a wide variety of patients (Silverstone et al., 2001). A cohort study of student learning in primary care suggested the environment offered opportunities to teach the general but also be exposed to sufficient specialist care (Oswald et al., 2001).

Do these studies suggest that experiences of patient contact are meaningful in a way that will enhance learning? Certainly they appear relevant to the curriculum for UK

medical students which emphasise learning in the context of patients' lives (General Medical Council, 2009). Are hospitals with their more dramatic clinical cases an easier learning environment providing more memorable experiences, or a less relevant one? Final year students from Leeds medical school during group placements in primary care appreciated the chance to see chronic illness and gain wide clinical experience, but were concerned about a lack of exposure to acute illness (Lucas and Pearson, 2005). Others have emphasised the need for hospitals to teach acute illness (Bryant et al., 2003). What is not certain is the ability of junior learners to have meaningful learning from the less dramatic clinical cases seen in primary care. Fernald and colleagues in a US study of longitudinal placements in primary care suggested students valued being challenged, and specifically mentioned the value of tutors seeking our interesting or memorable cases to stimulate learning (Fernald et al., 2001). The GP tutors' ability to make cases relevant and meaningful may be crucial to helping learning occur, and therefore the skill of tutors and the learning environment in primary care need further exploration.

Worley and colleagues (2004) compared learning activity using "learning logs" in three settings in Australia. Students in a community based (rural general practice) setting had greater patient contact than hospital colleagues, valued their clinical time more and had more supervision from experienced clinicians (though less overall supervision). Worley concluded the learning environment in the community setting provided a credible alternative to larger hospital settings, and may encourage a shift in the focus of learning away from books and towards patients.

This section on clinical learning has focused on undergraduate medical learners. There are two main reasons for this:

1. Half of UK medical students will become general practitioners or work in community settings. If learning comes from meaningful experiences then learning in a relevant workplace setting must be important. Undergraduate primary care placements provide an excellent environment to consider features of health care which are core objectives of "Tomorrow's doctors" (General Medical

Council, 2009) but also, and perhaps self evidently, are central to the GPs role: the delivery of care to the family and community, continuity, managing chronic diseases, offering preventive and public health and so on .

2. Much of non-medical undergraduate clinical learning occurs in hospital settings. A literature review of nurse and allied professional earning in primary or community settings concluded that few studies exist, and those published were often old (Gopee et al., 2004). There is a paucity of literature on non medical undergraduate clinical learning in community settings. Increasing numbers of nurses and allied health professionals will ultimately work in general practice or community settings, so it is logical that in future more clinical learning will occur in that setting. As with medicine previously the shift of learning environment and curriculum focus has been slow.

Primary care clinicians as educators

Gibbs (2004), reflecting on the move towards community based medical education, suggests research needs directing into the micro-environment of community teaching and learning. He notes the supportive managerial structure and the intimate relationship between doctor and patient that students observe, and suggests research is needed as to why this makes for "good teaching". That is true, although some answers are already apparent from a theoretical perspective if we accept the conditions required for transformative learning outlined above, and the humanist perspective that learning will occur where the environment is sufficiently supportive to allow it.

Ideas from transformative learning suggest that where educators can better engage with students it might encourage learning (Baxter Magolda, 1999, Cranton, 1994, Mezirow, 1991). Engagement may come from educator "authenticity". Is there any reason that students might relate to GP tutors as being "authentic" in the sense of Cranton and Baxter Magolda's use of that term (openness, awareness of learners needs, self awareness and humility)? Possible reasons include the following:

- GP tutors are first and foremost clinicians engaged with their own practice, and indeed their own learning through professional development programmes. Like their learners or apprentices they have to undergo appraisal, revalidation and the clinical learning which underpins these activities.
- GPs are specifically trained to explore their patients' health in a holistic way, and reflect on the social and psychological components of illness (McWhinney, 1997, Usherwood, 1999).
- In primary care/general practice patients choose to initiate a consultation. The clinician–patient relationship in primary care may be a fairly equal one, patients may feel more empowered (than in hospitals for example).
- Clinicians in general practice tend to deal with uncertain diagnoses. Through dealing with uncertainty they may appear closer to the clinical learner than a "medical expert" in hospital. GPs have a tradition of developing communication and consultation skills teaching which emphasises a patient/learner centred approach, exploring the patient/learner agenda and reaching a shared understanding (Neighbour, 1996, Pendleton et al., 1984).
- For medical students at least, the core curriculum emphasises many of the features GPs are specialists at. These include dealing with uncertainty, exploring patient problems in a holistic way, exploring the social and psychological components of ill health alongside the physical (General Medical Council, 2009).

Primary care clinicians do not have unique skills in any of these areas, but all suggest that they might make "authentic" teachers able to engage with learners and facilitate transformative learning in the clinical environment.

Clinicians in general practice are contracted to teach, but elect to do on a voluntary basis (in contrast to hospital staff who normally have teaching built into a job plan). Does this positive choice affect the nature of the learning environment? GPs consider many personal benefits in teaching. Most emphasise personal gain (intellectual stimulus, enjoyment, personal learning), some practice gain (enhanced status of practice, enhanced practice quality) and some altruism (giving something back)

(Fine and Seabrook, 1996, Murray et al., 1997). Teaching helps keep clinical practice up to date (Gray and Fine, 1997, Grayson et al., 1998, Hampshire, 1998, Hartley et al., 1999). In a qualitative study of extended undergraduate teaching within UK teaching practices GPs reported enhanced job stimulation and variety, and considered students a stimulus to learning and quality (Quince et al., 2007).

It might be considered that this positive choice to teach, and the variety of evidence which suggests a benefit to tutors and a positive regard for teaching, would all contribute to a supportive learning environment (essential from a humanist perspective to allow learning to occur).

3.3 Social learning and communities of practice

The main theoretical framework I will use in this thesis is the idea of learning in communities of practice, originally suggested by Lave and Wenger (1991) in their book on situated learning and further developed by Wenger (1998). This section of the literature review explores the concept of 'communities of practice' more fully, and places it in the context of social learning first suggested by Vygotsky(1978).

Vygotsky explored how learning could be best understood in the socio-cultural context in which it occurred, and suggested learning occurs through interaction, dialogue and mutual development (Vygotsky, 1978). He emphasised "development as a process of transformation of individual functioning as various forms of social practice become internalised by individuals" (Vygotsky in Penuel and Wertsch, 1995 p.84). This social interaction is the key to learning.

What distinguishes social learning theory from theories of learning already presented is the central emphasis that learning is best understood in a socio-cultural context and through the dynamic interaction involved in participation in a social process (such as work). Lave and Wenger's work on situated learning builds on these ideas (Lave and Wenger, 1991). Their work started as an idea of reinventing the concept of apprenticeship, and developed from the premise that meaningful learning is situated in a context relevant to the learner but that the learning occurs through 'legitimate

peripheral participation'. Learning occurs through being on a trajectory of learning within our workplace (or other learning environments) and because the learner belongs and participates, however much on the edge of an established community. Lave and Wenger considered that participation was an integral part of social practice, hence the links to Vygotsky (and indeed Dewey). Lave and Wenger's research considered case studies of apprenticeships: midwives, tailors, quartermasters, butchers, and alcoholics. Their direct relevance to clinical learning in UK general practice is perhaps not immediately apparent, but the theory of social learning developing from legitimate peripheral participation has captured the imagination of many clinical educators. This theory is the concept of "communities of practice" (Lave and Wenger, 1991, Wenger, 1998).

Lave and Wenger (1991) suggested that learners participated in their own "community of practice", and that learning occurred through interaction with more mature learners as part of a journey towards acceptance and integration. Negotiation of meaning and identity formation are central concepts of communities of practice (though only really explored in Wenger's later work: Wenger, 1998).

3.3.1 Communities of practice

The idea of 'communities of practice' appears to be the part of social learning most useful as a theoretical framework from which to consider clinical learning in general practice. Wenger suggested that learning occurs within settled groups of individuals who share common concerns, and learn through participation, interaction and mutual development and through negotiating meaning, exploring boundaries, and developing identity (Wenger, 1998).

Certain points are central to the idea of learning in communities of practice:

- The community is a cohesive unit with a shared history, culture, common interests, mutual engagement and 'shared repertoire'. It may be informal, but not transient.

- The community is made up of members of differing levels of experience and expertise. It reproduces itself through new members joining and being incorporated into the previous framework.
- Learning occurs within the community through involvement with shared experiences, through a process termed "negotiation of meaning".
- Negotiation of meaning involves both participation (essential for learning) and 'reification': a process of translating abstract concepts and values into reality.
- Learning occurs especially in two areas:
    1. During the trajectory from peripheral participation to more integrated involvement.
    2. At the community boundaries where tensions occur and are negotiated (Learning is enhanced by membership of multiple communities).
- Learning occurs through a process of belonging involving three elements:
    1. Alignment (compliance with the community; coordinating activities to fit with the wider group)
    2. Engagement (participation in a shared history; developing trajectory)
    3. Imagination (a consideration of the learners own position in space and time within the community; imagining the future)
- Through belonging learners develop and understand their own identity. Identity development is, with negotiated meaning through participation and reification, a central concept.

This is necessarily a short précis of a rich and complex thesis. I present it as a basis for an exploration of the relevance of the work to my own thesis, and as a structure to explore its various criticisms.

Why should the idea of learning in communities of practice form a theoretical basis for my work on clinical learning? Not from its pedigree; with the exception of midwives Wenger had no healthcare examples in his case studies, nor any traditional professional groups. However, the idea of social learning he presents encompasses previous theories of how adults learn and also my own experiences of clinical learning. General practices form small close knit communities with shared goals and

traditions where interaction and participation can at best stimulate learning. This is true both of existing members (GPs and nurses) but also apprentices, such as GPs or nurses in training, or junior salaried GPs or practice nurses just starting on their own trajectory into the practice setting. There is something compelling about the theory of communities of practice as applied to the coherent social grouping that is the reality of most UK teaching practices.

There are many criticisms of Wenger's ideas, and some self evident flaws in fitting it to my research area. I will start with three of my own concerns:

- Wenger considers the trajectory of participation and learning as crucial. Where does this leave transient learners e.g. medical or nursing students who may only be passing through a practice for a few weeks or district nurse and health visitor postgraduate learners who are only very loosely attached to a practice? They too learn from experiences in a general practice setting. Can Wenger's theory explain how that learning occurs?

- Wenger considers the social nature of the grouping as important, and implies a voluntary nature of learning. General practices are businesses, with GPs as partners and other clinicians often salaried to them. Does this business relationship alter the dynamics and 'negotiation of meaning' central to his work?

- What is the community of practice in a GP teaching practice? The whole team with a shared practice history, or separate professional or learner groups? Do professional and employment groupings fragment communities of practice, or create the tensions and boundaries Wenger considered a stimulus to learning?

This thesis explores these concerns and the relevance of Wenger's work to clinical learning in primary care and general practice.

3.3.2 Communities of practice in clinical settings

In their systematic review of the use of communities of practice in health care settings Linda Li and her colleagues identified 13 primary studies and 10 reviews (Li et al., 2009). The studies relate mainly to the secondary care sector from the UK and USA, and to occupational therapy, nursing and physicians. Li and colleagues suggest the term 'community of practice' is sometimes used to describe informal groups or teams (e.g. journal clubs and virtual learning groups) rather than those involved with social learning. Where communities of practice are described in health care they mainly involve learning, sharing knowledge and identity formation. The latter is more a feature of communities which are similar to Wenger's original concept where students gain knowledge through participation and engagement in their field. None of the studies were linked to primary health care or general practice settings.

There are two main criticisms of Li's review. Firstly the stated aim was to explore the *effectiveness* of communities of practice in learning. The language throughout suggests communities of practice were set up specifically to enhance and promote learning, at odds with the descriptive nature of Wenger's work which emphasised the informal nature of learning through participation. This difference of emphasis may lead to studies being excluded, as effective communities of practice may exist but not be recognised because they are informal. Secondly, Li and colleagues acknowledge the term communities of practice is only a recent one in healthcare, arising mainly in the last ten years, and yet their study parameter excludes work after 2005.

One major study of communities of practice in nursing, mainly from a secondary care perspective, was carried out by the English National Board for nursing, midwifery and health visiting (Burkitt et al., 2001). This explored the importance of the concept, based on research across eight healthcare sites. Only two were linked to the community (hospice and community mental health team,) and none to general practice or primary care nursing. The report highlighted the benefits of social learning, and recognised the validity of the concept of communities of practice in the clinical setting. It also highlighted the tension between situated learning in a

workplace community of practice, and the often inevitable separation of education between this and university settings. One conclusion was that clinical placements should be longer; that nurse students should have placements at least in twos to help better socialise in their placement; that nurse educators must be better informed and engaged with practice settings and that theoretical learning must be synchronised to make experience in clinical placements relevant and so enhance learning in the community of practice.

None of these points were tested in settings directly relevant to my own study, but all may be relevant observations as I explore the tensions for junior learners between the external curriculum and learning in a practice setting. How do these tensions affect the development of a community of practice?

3.3.3 Identity formation in professional practice

An important part of the theory of 'communities of practice' is that learning occurs through the process of negotiated meaning, participation and reification and these help define identity. The development of identity becomes inseparable from learning. Identity can be formed through participation in meaningful experience, but also through the tensions caused by being on the periphery and through 'non participation'. Are experiences and interactions which help create identity also the areas in which most learning occurs? Are clinical experiences which help develop identity crucial to professional learning?

Erikson's work with the development of adolescent identity resonates with work on developing medical or nursing identity (e.g. Erikson, 1968). Erikson saw identity as "an experience of continuity orientated towards a self chosen and positively anticipated future" (Erikson, 1968, Penuel and Wertsch, 1995). Individuals shape their identity within study or work by "judging himself (sic) in the way in which others judge him" (Erikson, 1968 p22). Learning arises from this dynamic process. This work is relevant to the literature on professional identity, e.g. Benner and

Melia's in nursing, and Becker and Sinclair's in medicine (Becker et al., 1961, Benner, 1984, Melia, 1987, Sinclair, 1997).

Benner (1984) developed a theory of how clinical learning occurs as we develop from novice to expert. Her work was based on paired interviews and group discussions with junior and expert nurses. The research was from critical care nursing in the US and is now twenty five years old. It has to be interpreted with caution, but her hypothesis is that clinicians move from novice to expert based on ability to relate theoretical learning to the clinical context and reflect on any incongruity. Learning occurs at the point of tension between what you are taught and what you observe in clinical practice. Clinical learning therefore requires an understanding of theory and sufficient clinical experience to test the relevance of theory in practice. Being an "expert" is demonstrated by the comfort of a clinician to master their role; to reflect on practice; to question; to filter and selectively apply theoretical knowledge and to use judgement and demonstrate "perceptual acuity".

Table 2

A suggested translation of Benner's work into a GP teaching practice context (after Benner 1984).

	Novice	Advanced beginner	Competent	Proficient	Expert
Undergraduate medical students	X				
Pre registration nursing students	X	X			
FY2 (junior) doctors	X	X			
GP Trainees (GPStRs), Nurse Practitioner Registrar		X	X		
Salaried doctor/Junior partner Junior nurses or Nurse practitioner/Pharmacist				X	
Partner & Established Senior Nurses/Nurse Practitioners					X

Benner's work was based on Dreyfus's five stage model of the mental activities involved in directed skill acquisition (Dreyfus and Dreyfus, 1980). Experiences and

teaching methods must be made relevant to the learners' context. The gap between experience and competence should not be so large that learning is inhibited nor so small it isn't encouraged (Dreyfus and Dreyfus, 1980, Wenger, 1998).

What happens when the gap between theory and practice becomes too wide for junior clinicians such as medical or nursing students? Perhaps the very complexity of clinical primary care with its morass of un-differentiated problems makes learning more difficult than in hospital where clinical scenarios may be simpler, or more defined. Are junior clinical learners best taught by experts (e.g. consultants or senior nurses in hospital; GPs or Nurse Practitioners in primary care) or might more junior teachers be better equipped to engage with junior students? The ideal teaching practice might need a range of tutors at different levels of experience and different parts of the trajectory of professional learning (a scenario that mirrors the hospital environment where a community of practice may involve both junior and senior clinicians as well as speciality nurses and consultants).

The context of Benner's work was that all learners are taking clinical responsibility. This is less true for today's junior learners. Pre-registration nurses and doctors have very little responsibility for patients and may remain novices in her model. The model has more relevance in postgraduate clinical learning, where the development of experience and clinical wisdom is part of developing professional identity.

"The Boys in White" describes identity formation and socialisation in a medical world now much changed (Becker et al., 1961). Becker's text illuminated from a student perspective the development of a culture dominated not by becoming doctors but by getting through medical school. "Students in their clinical years saw the situation as one in which the goal of learning what was necessary for the practice of medicine might be interfered with by the structure of the hospital and by the necessity for making a good impression on the faculty" (Becker et al., 1961 p. 436). Students aimed to pass their finals, they saw their identity development as doctors as almost incidental to that. Their learning however came from meaningful experience, taking responsibility, and shared ideas with their colleagues. These elements can be

interpreted as their negotiation of meaning and identity development through exploring boundaries. Sinclair (1997) suggested much of Becker's work remained relevant 30 years on. Students learned knowledge through experience and responsibility, but also learned how to behave and manage as a professional. Sinclair's conclusion about the process was not favourable: he specifically recommended a new style of apprenticeship training based in general practice and not hospitals in order to better ground doctors in patients' lives and problems (Sinclair, 1997).

Melia (1987) looked at the parallels to Becker's work in her study of student nurse socialisation. She focussed mainly on the tension between service and education, a tension in both nursing and medicine now largely delayed until postgraduate training and increasingly until post specialist training. Might the careful boundaries being imposed between learning and clinical experience be detrimental to clinical learning, as they avoid the very tensions and negotiation that gives rise to identity formation?

Melia developed various themes from her interpretive inquiry. The most important in this context is that of "transience". Student nurses felt an advantage in short placements from being "not part of the team". They considered this allowed them to concentrate on their learning. This view is clearly at odds with social learning theory and many of the ideas it is based around, the most important being that learning occurs through engagement with lived experiences, and real participation. In a GP teaching practice it is reasonable to suppose that medical and nursing students might value transience for the same reason, and might not engage with the practice. Other learners, such as foundation year doctors, are only present for four months, and GP specialist registrars sometimes for six months. Do they feel part of the team, and how does this perception link to their learning?

Like Becker, Melia also noted students' desire to "get through" (Melia, 1987). Both Melia and Becker observed that strategic learning might, in the students' eyes, be very different to the development of professional identity. A parallel might be observed now in clinical learning amongst doctors. Undergraduate training involves

little or no clinical responsibility, post graduation "foundation year training" is highly supported and structured, and GP specialist training is sometimes considered "supernumerary". Ideas of apprenticeship appear outdated, even though social learning theory suggests participation is vital for meaningful learning and identity development.

What of the links to learning within a GP teaching practice? For transient junior learners such as medical students the practice may appear remote, hierarchical, and distant with no "advanced beginners", "competent" or "proficient learners" to bridge the learning gap. Is it a good learning environment because of the expert clinicians and complex patients, or will this in fact inhibit meaningful learning? Is it hard to develop identity when your professional role models are at the opposite end of the trajectory of learning? These are areas I will explore further.

Table 3

Translating Melia's ideas on transience vs permanence to a GP teaching practice (after Melia 1987)

	Transient >>>>>>>>>>>>>>>				**Permanent**
	Days	Weeks	Months	Years	5 yrs plus
Medical student (junior)	X				
Medical student (senior) Nursing students		X			
Foundation year doctor			X		
GPStR Nurse Practitioner Registrar			X		
Salaried doctors Practice nurses				X	
Partners……					X

3.3.4 Beyond communities of practice: further ideas on social learning

Wenger's work on communities of practice has been criticised for neglecting the wider culture within the learning community (Hodkinson et al., 2007, Trowler, 2008); for ignoring institutional and formal learning (Evans et al., 2006, Fuller et al., 2005); ignoring transient learners (Trowler, 2008), and for not embracing learning amongst experienced and life long learners (Fuller et al., 2005).

Hodkinson and colleagues suggested that the concept of communities of practice failed to adequately acknowledge context and culture, especially aspects of power, hierarchy and conflict within the learning environment (Hodkinson et al., 2007, Hodkinson et al., 2008). Hodkinson's perspective appears relevant to the clinical environment, where differences of tradition, education and power between the major professions of medical and nursing are obvious. These factors will impact on the learning environment. Equally the environment is changing, with an increasingly feminised medical workforce and nurses becoming more predominant, respected and powerful.

Wenger's work also neglected the influence of formal employment relationships which may affect how modern apprentices learn (Evans et al., 2006). It also perhaps overemphasises the importance of social and informal learning. Evans and colleagues (2006) point out much learning in the workplace is planned around a core curriculum. This formal learning may be just as important to individual apprentices or learners as their participation in a workplace or clinical setting.

The above criticisms offer a wider perspective, but are perhaps unfair. Wenger does acknowledge tensions between local and global factors, and that community and organisational factors are important when considering alignment and identity (Wenger, 1998).

What a concentration on these wider cultural factors in learning allows is the development of a new model suggesting 'expansive and restrictive environments' (Evans et al., 2006, Fuller and Unwin, 2003). The 'expansive' environment allies

closely to Wenger's ideas of a 'learning community', where an educational body (e.g. University or workplace) actively supports the community of practice (and apprentices within it) and individuals participate in multiple communities of practice. The workplace (or perhaps community of practice) is highly developed for teaching and allows support, close links with formal learning, and opportunities to develop identity through boundary crossing. The converse is the 'restrictive' environment where apprenticeships are tailored to organisational and not individual needs, and opportunities for external support and participation are limited.

Trowler (2008) struggled in his work to recognise communities of practice, observing that there was often diversity and conflict rather than participation. Instead he described "teaching and learning regimes": transient groupings within the workplace where social interactions lead to deeper understanding and learning. Trowler's regimes acknowledge the often transient nature of interactions and learners and emphasise their dynamic nature including "diversity, conflict, power and dynamism" (Trowler, 2008 p. 57). They suggest a more fluid learning environment than within a community of practice, with less reliance on trajectory or belonging.

Trowler's ideas appear relevant to clinical learning in primary care, although it should be noted that he primarily offers a criticism of communities of practice and offers his regimes as a description of subcultures in organisations – not a theory of how learning occurs. The environments I am interested in are predominantly places of clinical practice. Education is unlikely to define the prevailing culture but may define a social grouping within (for example) a GP teaching practice. Whilst 'communities of practice' assume fairly stable boundaries with groups of individuals learning together through work, most clinical learning environments are characterised by transient learners, different professional groupings, different professional traditions and indeed rivalries. The implied tension and dynamism of the situation seem to mirror nicely Trowler's work.

My mentioning of these criticisms is not to deny the usefulness of the concept of "communities of practice", but rather to place the work in context and explore other

ideas which appear relevant to clinical learning in general practice. In many ways by examining the limitations of the work, its central relevance is emphasised.

3.3.5 Learning environment: learning communities, culture and climate

To conclude this literature review I consider the concept of learning environment. The learning environment can be considered the combination of the organisational culture, the external educational curriculum, and the facilities (physical and personnel) through which learning occurs. In a primary care teaching practice the environment might therefore include the whole practice staff, the patients, the building, the external context for learning and the organisational culture. Learning environment is a wider term than *learning community*, *learning culture* or *learning climate.* I will briefly discuss each of these in turn, as they are often used in an interchangeable and fluid way in the literature.

Wenger (1998) suggested a *learning community* was a community of practice where a combination of factors allowed learning to occur, but also be created. Learning communities have a self awareness, a pushing of boundaries and an interaction with other communities. Some clinical environments not only contain communities of practice, but have the dynamism, culture and "learning architecture" to be considered as 'learning communities' (Wenger, 1998). The learning architecture relates to organisational and cultural factors which help promote and sustain communities of practice.

Learning culture is perhaps best defined as "the way things that support learning are done in an organisation" and this might include assumptions, traditions, values and patterns of behaviour. Trowler (2008) emphasises that there are usually multiple subcultures within organisations and suggests three layers of culture. The first level is where an individual interacts with a social grouping, the next level is within social subgroups (perhaps 'communities of practice' within a teaching practice) and the third at departmental level (or its equivalent in clinical terms, perhaps organisational within general practice). The learning environment in a teaching practice will depend on its organisational culture (or subcultures). A supportive learning environment will

involve a combination of facilities and infrastructure for learners, an opportunity for clinical experiences and the presence of skilled educators to encourage critical reflection on those experiences. A culture which promotes and supports clinical learning is also essential.

Learning climate is often used interchangeably with learning culture. If there is a difference it may be that *culture* implies historical context and emphasises long standing beliefs and assumptions whilst *climate* is perhaps no more than the organisational characteristics perceived by its current members. The distinction is not precise, nor important for this thesis. It is mentioned as both terms are used in the clinical literature.

There are many studies on learning environment, culture and climate in general practice from the perspectives of both learners and the practice.

Smith and Wiener-Ogilvie (2009) used focus group interviews to explore the perceptions of postgraduate GP learners in Scotland to the learning climate in their teaching practice. Their work builds on work by Smith (2004), which emphasised the importance to GP trainees of feeling valued and supported, and mirrors work from Ireland where GP trainees considered the physical qualities of training practices (Mulrooney, 2005).

This work with postgraduate GP trainees identified three key positive characteristics of the clinical learning environment:

- A happy practice environment, motivated staff, feeling part of the team and being able to ask questions
- The individual trainer: being supportive, well organised, knowledgeable and good at feedback
- The level of practice organisation: well organised teaching, protected time for tutorials and for learning.

There was a consensus of the importance of good support, good organisation and high quality trainers. These were widespread in the environments studied, perhaps because of the one-one nature of the teaching relationship. The apprenticeship nature of postgraduate GP training, with long attachments in a environment where the learner may wish to join the practice or a similar one is perhaps crucial to engendering the sense of belonging and participation which encourages learning. All three studies support Maslow's ideas that effective learning is underpinned by physical, social and psychological comfort (Maslow, 1970). If the environment is right then learning will occur.

What of the undergraduate learning environment? Grant and Robling (2006) conducted action research with a single Welsh practice taking undergraduate medical students for the first time. Their research concentrated on the perceptions of the doctors and staff. A picture emerged of an enhancement of team spirit of morale and pride in the practice. The positive climate supported learning. The situation was however unusual; this was a single practice, recently formed, with a small new team. The suggestion that the learning activity helped to strengthen team spirit may be overstated, and may reflect the freshness of the team or its small size. The findings may not be generalisable.

Quince and colleagues (2007) explored the learning environment across undergraduate teaching practices. Whilst a study of individuals, rather than their interaction, it showed practice staff considered it a benefit to have students: for themselves (in terms of variety and interest) and the practice as a whole. Involvement in teaching helped improved practice image and self esteem. Conversely, reception staff commented on the pressure on appointments and increased complexity of their role. Many staff resented not being involved in the initial decision to teach students. Respect for the staff that support clinical learning is essential to ensure a positive learning environment (Quince et al., 2007)

The suggestion in the literature therefore, albeit biased to the UK and to medical learning, is of a supportive learning environment characterised by highly organised

and committed administrative staff, skilled and supportive tutors and a positive learning culture. There is a paucity of literature relating to nursing and other professional placements in this setting.

3.4 Summary and ideas arising from the literature review

I have tried to explore ideas of how learning occurs in adulthood, from theories of individual learning to those of social learning. I have looked in some detail at the ideas of learning in 'communities of practice' and at developments of this work including the importance of learning climate and culture. I have provided clinical examples from primary care to highlight learning points, though this has often served to emphasise the paucity of research in this important environment.

There are many studies, especially from undergraduate and postgraduate medical training in the UK, which explore learner and educator perceptions of the learning environment without providing any analysis of how learning occurs. The literature review has revealed the gap in knowledge that I am trying to address:

- How does clinical learning occur within a GP teaching practice, and what does it mean to be a 'teaching practice'?
- Why does learning within general practice appear to be highly valued by a range of learners, and what is it about the learning environment that makes it this way?
- What are the balances between learning from individual teachers, from memorable patients, from a formal curriculum or from the social network that is a 'community of practice'?
- How does the concept of 'community of practice' translate to this clinical environment, and to a variety of learners?
- How do other ideas of learning environment, community, culture, and climate translate to the clinical learning environment in general practice?

The research presented in this thesis cannot address all these areas, but the literature review does provide a theoretical and academic context for the research undertaken, its relevance and its potential contribution to knowledge.

Chapter 4
Methodology

This chapter outlines the purpose of the study, offers a theoretical framework to explore the research area, gives details of the methods used to answer the research question, and discusses their strengths and limitations.

4.1 The purpose of the research

The purpose of the study is to explore the nature of the learning environment within primary care, specifically within general practice in a UK setting. The study focuses on clinical learning within a single GP teaching practice in Bradford, England. The research seeks to understand how learning occurs within this particular environment and to develop a theoretical model which may help analyse learning in similar settings. It seeks to explore the learning experiences and perceptions [4] of those involved with, and those supporting, clinical learning within the chosen practice. This includes an exploration of the interactions between learners and teachers, and of how previous work on social learning theory (including communities of practice) and learning culture are relevant for different groups of learners within this setting.

My inquiry seeks the perceptions of a range of learners, including:

- "Transient learners" - learners on short term placements e.g. undergraduate medical students.

- "Vocational learners" - learners involved with vocational study e.g. nurses or nurse practitioners in training, and general practice specialist registrars.

[4] For the purposes of this work I understand 'experiences' to mean activities or events participants have directly encountered, and 'perceptions' as any emotional or intellectual reaction to these experiences.

- "Embedded learners" – established clinicians or attached professional staff involved with personal continuing professional development e.g. GPs, practice nurses, and allied health professionals.

4.1.1 The research questions

The main research questions are:

How does clinical learning occur in primary care and general practice?
What does it mean to be a "teaching practice"?

These broad questions lead into more specific areas of inquiry:

- how and where do learners and teachers perceive learning to occur within the chosen primary care teaching practice?

- how can the nature of learning in the practice be viewed in terms of existing theories of learning (particularly but not exclusively social learning theory, and communities of practice)?

- how does the nature of learning in the practice help contribute to developing professional identity?

- how do these perceptions vary between learners of different levels of experience?

- do learners, their teachers and those supporting learning have a sense of the organisation being a "community of practice" (and, if so, what does that term mean to them?)

- is it possible to describe a learning culture within the practice and, if so, how is it felt that learning and teaching is affected by that culture?

- do learners, their teachers and those supporting learning have a sense of the organisation being a "teaching practice" (and, if so, what does that term mean?)

4.2 The research design

My research involves a single descriptive case study of a purposefully chosen multi-professional teaching practice conducted over a twelve month period from August 2008. The case study used qualitative methods including interviews and observation, supported by documentary evidence and ideas arising from the literature.

4.2.1 Guiding principles

The study of medicine has largely followed a materialist ontology and an empiricist philosophical approach which suggests that knowledge can be gained through systematic observation and experimentation (Scott and Marshall, 1998). Other clinical fields, especially nursing, are no different. Clinical education has held a nominalist position, with students encouraged to categorise observations, and look for patterns to recognise disease. This works well to explore isolated physical illness but less well where interactions of health and social problems affect people's lives.

My interest lies in clinical learning within primary care and general practice: where patients present with a complex range of symptoms and often multiple problems, each with a physical, social and psychological component.

Over twenty five years there has been a greater acceptance within clinical education of an interpretive ontology. On one hand this has been driven by societal changes; challenges to paternalism from the feminist movement; a more egalitarian society (in terms of education and knowledge); a challenge to western medical assumptions through globalisation; a mixing of healthcare traditions; and a challenge to the power of professions. In a large part the ontological shift has been driven by research from within general practice. I offer two examples. Balint's work on interactions within the consultation showed how much this was a social interaction, affected by

personality, emotions and history (Balint, 1986). Launer (2002) showed through interpretive work that each consultation creates a story, with a new reality which changes both participants. Through exploring the experiences, perceptions, and interactions of clinical learners within the small cosmos of a teaching practice I have tried to build on this tradition of interpretive inquiry in general practice research.

My research follows an interpretive ontology, which suggests there is a non-physical world made up of emotions and social interactions; difficult or perhaps impossible to measure but no less real or important for that (Pring, 2004). Indeed, concentrating clinical research on the easily measurable risks excluding what is most important (Wolf, 1997).

My epistemological position is that to explore this interpretive world needs a post modernist approach which accepts there is no fixed reality, merely ideas which will arise from the research interaction (Pring, 2004). This position is modified in the light of hermeneutics (the art and science of interpretation) and its suggestion that pre-existing theories of reality are important and interpretation of emerging data has to take into account those theories, and re-interpret and build on them (Ezzy, 2002). An interpretive researcher needs to be immersed in the research, listen to participants' stories, and observe their interactions (Ezzy, 2002).

4.2.2 Choosing the method

I have chosen a single descriptive case study of a purposefully selected teaching practice, seeking multiple perspectives from those involved with clinical learning and teaching through observation, interviews and documents. This approach seeks to provide an illustration of learning and teaching within the chosen practice, and may contribute knowledge of relevance in similar teaching practices.

Case study is a research method ideally suited to answering "how" and "why" questions (Yin, 2003a). It allows the researcher to investigate a contemporary phenomenon (e.g. clinical learning in primary care) within its real life context (e.g. a

teaching practice). This is especially useful when the boundaries between the phenomenon and the context are not clearly evident (e.g. how learning occurs within the practice) (Yin, 2003a). Case study is a useful method "for developing a body of knowledge about a subject" (Bowling, 2002 p. 67) and "for the study of complex social settings" (Bowling, 2002 p. 404). They "offer a specific incident designed to illustrate a more general principle" (Cohen et al., 2000 p. 181).

Case study allows an exploration of clinical learning within the chosen setting using multiple sources of evidence (interviews, observation and documents). This provides triangulation which strengthens the data, and increases validity (Yin, 2003a). It also allows in-depth analysis of the experiences and perceptions of clinical learners, teachers and staff supporting learning and more importantly an exploration of the interactions within and between these groups.

A single case study approach offers some advantages over multiple case study design, in particular an intensity of approach with exploration of the shared understanding of participants (Pring, 2004).

4.2.3 Sources of data within case study

Interviews allow an exploration of ideas, the meaning behind ideas and a clarification of views (Stewart and Shamdasani, 1990). They provide "access to meanings people attribute to their experiences and social worlds" and offer a way to "understand and document others' understandings" (Miller and Glassner, 2004 p. 126). The interaction between interviewer and interviewee, and between interviewees in focus groups, helps develop ideas and creates new knowledge (Miller and Glassner, 2004).

Individual face-face interviews allow an intense examination of the research questions. They enable the researcher to go "below the surface of the topic", and explore the understanding underlying interviewees' opinions (Britten, 1996 p. 30). Individual interviews may be time consuming, expensive and hard to analyse

(Bowling, 2002). The interviewer can dominate, leading to bias and discouraging the interviewees' own ideas from emerging (Cohen et al., 2000).

Focus group interviews are *focused to* a particular topic area, involve the interaction of a *group* of people sharing a common interest or characteristics, and are *interviews* in the sense that the moderator uses the group to elicit information. The group interaction may allow unexpected insights less likely in a one-one interview (Stewart and Shamdasani, 1990, Wilkinson, 2005), and help participants to develop, explain and clarify their views (Kitzinger, 1995). Group interviews offer a faster and cheaper way than one-one interviews to elicit views from a wide number of participants (Stewart and Shamdasani, 1990). They may however be dominated by one or two members, with overt or covert intimidation of quieter participants or those with outlying views (Kitzinger, 1995, Stewart and Shamdasani, 1990).

The success of all interviews depends on the skills of the interviewer/moderator. They should facilitate discussion, control the interview/group, and yet remain independent (Flick, 2006, Stewart and Shamdasani, 1990). A poor interviewer or moderator may cause unwitting bias, often towards conformist opinion (Flick, 2006, Stewart and Shamdasani, 1990).

Direct and indirect observation can increase the insight into findings emerging from other sources of data (Yin, 2003a). They help develop understanding through watching participant interaction and the nature of their communication (Bowling, 2002).

Documents can form one of several sources of evidence to build up a picture of the case (Yin, 2003a). This evidence can help understand and triangulate information from other sources.

4.2.4 Rejection of other research methods

My main research questions are “How does clinical learning occur in primary care?” and “What does it mean to be a “teaching practice”? These could be addressed in a variety of ways.

One approach would be to survey clinical learners across a spectrum of teaching practices. This would have advantages common across quantitative research, and specifically survey work: i.e. if properly conducted, with careful sampling and a good response rate, the findings would be representative of the whole community of teaching practices, and so generalisable (Bowling, 2002). Using open questions and/or attitudinal response scales would allow the perceptions of those involved with learning or teaching in primary care to be elicited (Bowling, 2002, Cohen et al., 2000). One problem with such an approach is the paucity of relevant literature, suggesting that theoretical concepts have not been sufficiently developed to allow their testing within a quantitative framework. A quantitative approach would not allow an exploration of ‘how’ and ‘why’ questions pertaining to the perceptions of those learning and teaching within primary care.

A second approach would be to use qualitative research methods with interviews of a purposive sample of learners and teachers from a variety of practices. This could provide a more representative sample than a single case study, and have theoretical advantages of transferability. It would not allow in-depth analysis of the interactions between learners and teachers, nor exploration of the interactions between clinical work and learning which might help define a ‘teaching practice’.

A comparative case study (two or more cases) would improve transferability through replication but reduce the time available for in-depth analysis of interactions between learners, teachers and staff at the single practice. Studying two or more sites would increase the organisational and research time (e.g. observations), although arguably the total number of interviews would not have to be increased.

Finally, given that I chose to look at learning within an individual practice, why did I not use either ethnography or a pure grounded theory approach?

Ethnography is a research technique which could be used to explore behaviours within a case study (Flick, 2006). It would be ideally suited to a less focussed exploration of a teaching practice. As I had a prior knowledge of the field and a desire to focus on clinical learning I judged it to be less appropriate than case study.

Grounded theory is useful to address research questions in medical education, "where the research question involves social interactions or experiences and the research aim is to develop a theory or explain a process" (Kennedy and Lindgard, 2006 p. 193). It is ideally suited to areas where little research is published. I arrived however with ideas from my previous experiences and from the limited research available. This restricted the possibility of a pure grounded theory approach, although some would argue that by adopting a 'theoretical sensitivity' these concerns could be overcome (Ezzy, 2002, Flick, 2006).

4.2.5 Quality and rigour in case study research

The judgement of quality and rigour in qualitative research is a source of much debate. In this section I will explore this debate, and consider theoretical concerns relating to the use of case study and the sources of data within case study.

Within my own background of clinical education most qualitative work has quality expressed within a positivist paradigm which suggests that concepts such as reliability, validity and objectivity should apply equally to this work if it is to have credibility alongside quantitative work (Altheide and Johnson, 1998). Some commentators have sought to redefine terms such as reliability, validity and rigour and defend their use in this context (e.g. Flick, 2006, Pope and Mays, 1996). Within case study research these same terms are used, albeit with a debate about suitability (e.g. Merriam, 1988, Silverman, 2004, Yin, 2003a, Yin, 2003b).

Many from an educational and sociological tradition find this approach illogical given the interpretive ontological background of the research. They argue that there is a danger in applying quantitative criteria for judging quality both because of the inherent dishonesty of this approach (Ezzy, 2002) and as the terms themselves become imprecise and misleading (Leininger, 1992). Other commentators argue that "trustworthiness" is a more useful concept when considering the quality of interpretive research and would include dependability, credibility, confirmability and transferability (e.g. Lincoln, 1985, Miles and Huberman, 1994).

In acknowledgment of this ongoing debate I will discuss the research quality in terms of trustworthiness and its associated components, but where relevant relate these to reliability, validity and generalisability in recognition of the continuing use of these terms with clinical educational literature. I have used a framework suggested by Miles and Huberman (1994), with additional ideas from Flick (2006), as my guide to linking ideas across research traditions (Box 3).

Box 3: Trustworthiness in interpretive work (after Miles & Huberman (1994) p278)

Quality in interpretive work	**Equivalent from positivist standpoint**
Dependability/auditability	Reliability
Credibility (authenticity)	Internal validity
Transferability/fittingness	External validity
Confirmability	Objectivity
Application	Utilisation

Trustworthiness includes *dependability, credibility, transferability, confirmability, and application.* It is enhanced by prolonged involvement and observation in the field, the use of different researchers, triangulation of data sources and discussion of work with those not directly involved ("peer debriefing").

Establishing the *dependability* of interpretive work involves constructing an audit trail of how the case study was approached, how data were collected and how analysis was undertaken (Flick, 2006). The closest equivalent in natural science would be reliability. In a single case study it is hard to argue that findings can be 'reliable' as there can be no replication of findings between cases (Yin, 2003a). Dependability is enhanced by demonstrating that the operations of the study are repeatable with transparency regarding data collection (a clear study and interview protocol) and data analysis (Merriam, 1988).

Credibility: Would participants or outside observers be able to identify with the result? Within case study research credibility might be enhanced by a careful choice of the case and the approach within the case, in particular triangulation using multiple data sources, longitudinal observation, validation with participants and through an honest discussion of researcher biases (Merriam, 1988).

Transferability is generally equated to 'external validity' and 'generalisability'. Silverman (2005) argues the goal of case study research should be to maximise 'generalisability' as "description of a case for description's sake is a weak position" (Silverman, 2005 p. 128). He suggests methods to maximise the relevance of the case study research, especially through purposive sampling with careful regard to the theoretical background from the literature (Silverman, 2005). Yin (2003a) is more cautious, suggesting case study research can only be generalised to theory. Merriam (1988) takes a middle way: acknowledging that generalisation is possible but depends on the researcher providing a detailed context of the case study, offering working hypotheses which may be useful in similar settings, establishing the typicality of the case chosen, and offering findings which allow others to judge their relevance to their own context ("user generalisation").

Confirmability is the concept of neutrality of the researcher, an attempt to minimise or at least acknowledge research biases. Within a natural sciences paradigm confirmability or objectivity is all important, and arises from the positivist ontological standpoint. It remains valued within clinical educational research.

Research bias might be minimised through an acknowledgement of personal interest in the research, the use of independent researchers and by exploring different research interpretations. Many would argue that the concept of confirmability is flawed in qualitative research. By its nature interpretive research must accept that the very process of research and the presence of the researcher will influence the subjects and environment studied. Being involved in a case study of education in a small teaching practice must influence the education provided, most likely through a conscious or unconscious pressure to improve systems and quality.

Application: The ultimate test of the quality of any research is in its utility, or application. This reflection on quality within this thesis can only be applied after the findings are disseminated, and their impact is assessed.

4.3 Conducting the research

4.3.1 Choosing the sample case

My case is an established teaching practice, purposefully chosen as an "instrumental case" (Silverman, 2005 p. 127) or "representative case" (Yin, 2003a p. 41). The choice of practice was made taking into account the questions that I sought to answer (theoretical sampling), and the parameters of the population I was studying (purposive sampling) (Denzin and Lincoln, 2000, Silverman, 2005). I therefore sought an established teaching practice with undergraduate and postgraduate learners from a range of professional groups; of a size, structure and population likely to make the findings of relevance to other teaching practices.

The sample case was chosen from within Bradford and Airedale Teaching PCT (tPCT) for two reasons. The tPCT are co-sponsors of the proposed research, and the main location within the Leeds School of Medicine area for practices taking undergraduate medical learners at multiple levels of experience.

I wrote to all practices within the tPCT who fulfilled the above criteria. Of sixteen practices approached, five asked to be considered. These practices were asked to

provide further information including practice profile, size, location, population base, teaching activities and details of clinical staff.

Sunnybank Medical Centre[5] appeared the closest fit to my criteria, and most "representative" in terms of size, structure and population mix. The characteristics of the chosen practice are outlined in Chapter 5.

The remaining four practices were deemed less "representative" for a variety of reasons. All had a smaller range of undergraduate learners and less professionals undergoing supervision or training. One had a practice population with very high percentage of patients from black and ethnic minority groups; another one was an amalgamation of three small practices. None of these characteristics invalidates their role as teaching practices, but makes them less representative of a majority of UK teaching practices.

4.3.2 Defining the "unit of analysis"

Yin (2003b) and Silverman (2005) emphasise the importance of defining the "unit of analysis" in case study research. Within my single case only aspects of the practice relating to clinical learning were studied. Experiences and perspectives were sought from a variety of clinical learners and teachers, and staff directly involved with supporting this learning or teaching. Data was collected during one academic year (August 2008 to July 2009), allowing the perceptions and experiences of all key clinical learners to be explored (clinical teaching varies across the academic year, which coincides with the rotation of GP specialist registrars, other professional trainees and student learners).

[5] I have named the chosen practice after discussion with staff and partners, who declined an offer to remain anonymous

The boundaries making up the unit of analysis were:

- Historical documentation illustrating the development of clinical learning and teaching in the practice.
- Documentation relating to the organisation, assessment and financing of learning or teaching in the practice.
- Direct non-participant observation of meetings relevant to clinical learning and teaching over the research period.
- Interviews over a twelve month period (a single academic year) with clinical learners, teachers and staff supporting learning and teaching.

4.3.3 Data collection within the case study

Interviews

Interviews were conducted over the academic year with a purposive sample of three groups of clinical learners, their teachers and administrative support staff. These clinical learner groups included:

- Transient learners: clinical students at undergraduate level, mainly medical students.
- Vocational learners: clinical professionals on vocational training attachments, including nurse practitioners, nurses, and GP specialist registrars.
- Embedded learners: clinicians involved in learning mainly as continuing professional education.

The final group for purposive sampling comprised practice staff involved directly with supporting learning and teaching (the practice manager and key administrative staff).

Each chosen participant was invited to take part in an interview or focus group interview. Individual interviews were preferred, for reasons previously discussed.

Focus group interviews were used where groups of learners were present for a limited time (e.g. second year medical students).

Interviews were conducted face-face at the medical centre, and lasted approximately 40 minutes. The interviews were conducted/moderated by Dr David Pearson (DP) or Dr Beverley Lucas (BL). Dr Lucas is an experienced qualitative interviewer unknown to practice staff, who has done previous research in this field.

Choice of interviewer: As Head of Primary Care Learning and Teaching at the University of Leeds I am the quality assessor of clinical staff involved with medical student teaching, and of the medical students (albeit at a senior level). My presence could bias the interview findings. The same concern does not apply with other clinical learners or teachers. In order to minimise bias an independent interviewer (BL) conducted the medical student, GP, and practice manager interviews.

Having two researchers provided an additional benefit of allowing more material to be gathered, and providing a wider perspective. Equally it allowed dual analysis of findings which helps increase trustworthiness. Having two researchers involved in data gathering raises the need to maintain an even approach to questions, with a common case study proposal (Yin, 2003b).

Conduct of interviews: All participants received a research information sheet, and signed a consent form (Appendices 1:1 & 1:2). Interviews were audio-recorded and transcribed verbatim by an experienced clerk unconnected to the research practice or participants. Where possible transcription and analysis occurred concurrently with data collection, allowing questions to be modified in the light of emerging findings.

The interviewer/ moderator followed a semi-structured topic guide designed to cover the research questions (Appendix 2). The guide was influenced by my background experience, literature pertaining to educational theory or clinical learning, and by information emerging from documents and observation within the chosen practice.

Pilot testing of the topic guide was considered unnecessary as it could be modified in the light of emerging findings.

Interviewees: The interviewees were chosen by purposive sampling to ensure interviews were spread across learner and clinical groups and across the academic year. Further interviews were included according to emerging findings from interviews, observation or documents. Table 4 gives the final list of interviews.

Table 4
Final schedule of interviews.[6]

Participant	**Type of interview**	**Overall number of interviews (participants)**	**Interviewer/ Moderator**
Transient learners			
Medical students (various years)	Individual (8) & Focus Group (2)	10 (15)	BL
Vocational learners			
GP Specialist Registrar	Individual	3	DP
NP, PN & HCA in vocational training	Individual	3	DP
Embedded learners (Clinicians involved with personal CPD; includes clinical tutors)	Individual	8	DP (3) BL (5)
Practice staff supporting learning (Administrative)	Individual	4	DP(3) BL (1)
Total		**28 interviews (33 participants)**	

[6] NB: This schedule does not include the interview with two GP partners (May 2009) conducted purely with the intention of documenting the practice history,

Documents

Documents relating to educational matters (both internal and external) were collected and helped develop an understanding of the nature of learning and teaching in the practice. These included timetables and curricula, standards and contracts for teaching, and feedback. Other relevant material included GP contracts and staff contracts, the GP partnership agreement as it relates to teaching, and financial information regarding teaching activity.

Table 5

Documents supporting the case study research

Subject of document	Number of documents	Dated from:	Number of learners
Practice nurse postgraduate	1	2009 (Covers placements 2008/9)	1
Nurse practitioner	None available	None available	
Medical undergraduate			
2nd & 3rd year feedback	1 (collated feedback)	2008	7
4th year feedback	2	2008	2
5th year feedback	15	2008 & 2009	15
Medical postgraduate	3	2009 (Covers 2008/9)	3
Practice educational meetings	27	2008 & 2009	6-12 per meeting[7]

[7] But only GPs and NP recorded

The documents served two main purposes. Firstly to help frame initial questions relating to the topic guide used in interviews and observations (alongside ideas from the literature, my personal experiences, and information from interviews and observation). More importantly information from documents was used to help triangulate data from other sources. For example, did written feedback from learners match with ideas arising within interviews?

Most documents accessed were tick lists with space for free text comments. These comments were coded (in parallel to interview coding) however no attempt was

made to conduct formal analysis. This would have been desirable in terms of trustworthiness and rigour of data, and was the original intention. The idea was dropped however as the volume of material across the case study was too large.

Observation

Observation occurred at three levels:

- An exploration/interpretation of various artefacts relating to education within the practice e.g. teaching space, library, information boards and protocols.

- Informal non-participant observation of the practice environment over the year of study. This was enhanced by my regular presence in the surgery: working within the building on a weekly basis whilst conducting interviews and during data analysis. Observations and reflections were noted down and allowed a further insight into clinical learning via observation of learner interactions with peers, tutors and staff and a closer appreciation of the learning culture.

- Direct non-participant observation of meetings. Nine meetings during the academic year were observed by Dr Beverley Lucas (BL) (Table 6). BL conducted the observation to reduce my own potential observer bias (see above). Direct observation was unobtrusive (present as a passive observer) and semi structured (the interview topic guide providing a framework to note verbal or non-verbal interactions around areas relating to learning and teaching). Data from observations was recorded contemporaneously (though not verbatim), and used to help develop interview questions as the research progressed. It was linked to findings from interview data to help develop research categories, themes and theory; and in triangulation of emergent ideas.

Table 6

Schedule of Direct Observation (2008/9)

Identifier	Date	Location	Activity	Internal Staff	External Staff	Clinical learners
Observation 1 (#1)	3/4/08	Library	5th year SSC Assessment	GP Tutors X 2 A+B	N/A	5 Medical Students
#2	7/4/08	Education Room	Trainee N/Practitioner Assessment	GP (B)	University Academic	Trainee N/Practitioner
#3	1/10/08	Seminar room	PLT Chronic Disease	12*	N/A	GPs, GPStRs, NP, Nurses
#4	10/10/08	Library	Teaching session	GP (1)	N/A	3 Medical students
#5	5/11/08	Library	Practice nurse team meeting	Nurses (6) H/C/A (3)	N/A	Nurses
#6	5/11//08	Education Room	PLT Mental Capacity Act	18*	Guest Speaker	GPs, GPStRs, NP, Nurses
#7	3/12/08	Skills Room	Skills training	Admin (2) H/C/A (5) PN (1) NP(1) N(1)	Demonstrator	NP, Nurses, HCA, Admin
#8	3/12/08	Education Room	P/L/T Confidentiality	21*	Guest Speaker	GPs, GPStRs, NP, Nurses
#9	4/2/09	Education Room	PLT Risk and Confidentiality	25*	Guest Speaker	GPs, GPStRs, NP, Nurses

4.3.4 Ethical considerations

Ethical approval for the research was obtained from the Bradford NHS Research Ethics Committee (REC reference 07/H 1302/49: dated 10/01/2008); the University of Leeds Medical School (31/10/2007); and NHS Research Governance approval from Bradford and Airedale tPCT (3/10/2007). The main ethical considerations are outlined below.

Informed consent: Participants were informed about the nature of the research via a research information sheet (Appendix 1:1). Individual written consent was obtained prior to the interviews (Appendix 1:2).

Confidentiality: Interviews were audio-recorded and transcribed verbatim. No names were associated with the transcripts which were accessible (in anonymous form) only by the researchers and the administrative clerk who transcribed them. On completion of the research, the audio-recordings will be erased. This thesis contains only anonymous quotations, as will any future published work. The case practice has consented for its identity to be revealed.

Time: Involvement in the research had an impact on individuals' time: potentially reducing time available for seeing patients or teaching (clinicians), or from studying (learners). This was minimised through a maximum direct involvement per individual of a single forty minute interview. Indirect involvement during observation should not have impacted on work or studying. Involvement in the study used up the researchers' time, but was justified as they believed the study would generate knowledge of use to them, the NHS and the academic community.

Coercion: Participants may have felt pressured to participate in research. This was a risk due to teacher – learner dynamics; especially regarding medical students as I am responsible for managing primary care education in the medical school. This was addressed through obtaining informed written consent prior to interviews; and by participants being advised that non-participation would not have adverse

consequences. Interviewees may have felt pressured to give an "official" acceptable view (e.g. medical school policy or favourable opinion of the practice). This risk was reduced by the use of an independent researcher (BL) for interviews with undergraduate medical learners and teachers; from clarity regarding data confidentiality; and by emphasising that any direct quotations would be anonymised.

Confidentiality and data protection issues: The storage and use of all data followed written information given to participants on the research proposal protocol and addressed in the ethical approval process. Data will only be used for the purposes intended, and not shared in attributable form with any third parties.

4.4 Handling the data

The purpose of qualitative research is to hear the "voice" of the research participants, and ensure that voice is not drowned out by a researcher's prior ideas (Ezzy, 2002). In theory a purely inductive approach to data will allow this, although in practice the researcher's own ideas will influence the findings. This danger was mitigated, as much as is possible, using techniques described in some of the literature on qualitative research (Ezzy, 2002, Flick, 2006, Strauss and Corbin, 2008). These include an explicit and systematic approach to data analysis, testing emergent ideas through peer debriefing and checking understanding with participants.

Keen and Packwood (1996) emphasise the importance of developing an analytical framework to help facilitate the interpretation of findings in case study research. Case study research in health care has been compared to a GP consultation (Keen and Packwood, 1996). It starts with broad open questions exploring an ill defined problem from a variety of angles and narrows down to draw hypotheses about the area under investigation. This approach helped analysis to be kept in a framework shaped by the literature and developing theory.

Emergent ideas, themes and theory arising from the data were explored through regular discussion of ideas with my research colleague [BL], and with academic

peers both informally and formally (through presentation of data). Emergent ideas were not fed back to participants during data collection (although they were offered a sighting of personal interview transcripts). Within the small environment of a case study the benefit of this may be outweighed by contamination of further interviews.

4.4.1 Thematic analysis and modified grounded theory

Transcribed data from individual and focus group interviews were analysed using thematic analysis within a modified grounded theory approach. The process followed suggestions offered by Strauss and Corbin (2008), itself based largely on work by Glaser and Strauss (1967). Additional suggestions came from Coffrey and Atkinson (1996), Ezzy (2002) and Miles and Huberman (1994).

Thematic analysis is an inductive process in which ideas emerge from the data as research proceeds. In this research some preconceived ideas were present from my own experiences and reading of the literature. Prior hypotheses and ideas occur in all research and should be incorporated into the analytic process (Ezzy, 2002). The analysis was 'thematic' rather than 'content' based as I allowed emerging ideas to influence subsequent interviews, and ideas and categories to emerge from the data. Equally, and inevitably, some categories arose from pre-existing theory.

The goal of data analysis is to seek ideas and explanations from systematically collected data using an inductive approach: taking ideas directly from the transcribed data and making sense of these in the light of their context, comparable ideas from previous interviews, or ideas generated from field notes or other reading (Ezzy, 2002, Strauss and Corbin, 2008). This "constant comparative approach" allows a deep exploration of data and a fuller understanding of findings (Ezzy, 2002 p. 94).

My study used a modified grounded theory approach to analysis. Kennedy and Lindgard (2006) argue that a common pitfall in medical educational use of grounded theory is that it is applied selectively to analysis of data, but not to the study design. Their criticism is somewhat justified in my approach. One cornerstone of grounded

theory is that data collection and analysis are occurring concurrently, with interviews adapted in the light of emergent findings. This process was broadly followed, but the pace of transcription and analysis did not always match data collection. Whilst the interview schedule was modified in the light of new ideas, this was not done to any dramatic degree. Equally my pre-existing constructs might have restricted the inductive nature of true grounded theory analysis (Ezzy, 2002, Strauss and Corbin, 2008).

Data collection continued until a predetermined purposeful sample of learners was interviewed. Preliminary analysis proceeded simultaneously. By the final interviews it appeared that no significant new ideas relating to the research questions were emerging. "Saturation" helps enhance the trustworthiness of findings in qualitative research (Ezzy, 2002, Kennedy and Lindgard, 2006, Strauss and Corbin, 2008).

4.4.2 Coding: categories, themes and developing theory

Data was transcribed verbatim and read through twice to allow immersion in the text.

My approach to coding followed the terminology suggested by Ezzy (2002). The process is consistent with other authors such as Corbin and Strauss who developed the concept of open and axial coding within grounded theory (Strauss and Corbin, 2008). In following Ezzy I have deliberately simplified the terminology, and avoided the terms 'concept' (Strauss and Corbin, 2008) and 'second order coding' (Miles and Huberman, 1994). Box 4 gives my personal interpretation of terms used in analysis.

Box 4

Codes, categories and themes
My interpretation and use of qualitative data analysis terminology.

There is great variation between different terms used within the process of qualitative data analysis, which can lead to confusion. The process described in analysis is largely consistent across authors however. It involves identifying simple ideas which emerge from the voice of research participants and linking these ideas into a coherent narrative to explain the data and subsequently either link this narrative to existing theory, developing new theory, or both.

During my analysis I have used the following terms, in the way described below:

Open codes: initial ideas, sometimes direct quotes or phrases, which arise directly from the participants

Axial coding: the process of linking the open codes identified from participants, a process resulting first in 'categories' and then 'themes'.

Categories: ideas from my interpretation of the data which emerge by the process of axial coding, and which help link certain of these codes.

Themes: if categories are simple linkages made between single ideas within open codes, then 'themes' are a higher order interpretation of the data emerging from the relationships which link 'categories' together and build theory.

Selective or theoretical coding: a process which denotes the final stage of analysis and involves identification of a core idea or narrative which links the categories or themes emerging from the data.

"Open" coding was used to identify ideas from research participants. Some codes arose directly from phrases within the text which appeared to encapsulate an idea (e.g. "*the tutor was* "*always available*""- code underlined), whilst other codes were based directly on ideas emerging from the data e.g. *"availability of support".*

"Axial" coding developed from these initial open codes, and involved determining a linkage between open codes and the grouping of these coded ideas into 'categories' (Ezzy, 2002, Strauss and Corbin, 2008).

Initial analysis proceeded in parallel with further data collection, allowing emerging ideas to be fed back in to the research process. Initial analysis was manual (rather

than computer assisted). My personal view was that this approach allowed me more flexibility and openness whilst exploring the data and developing links between different emerging ideas. Once data collection and manual analysis was completed, the data were re-analysed using N Vivo Version 8. Computer-assisted qualitative data analysis software (CAQDAS) simplifies the handling of large quantities of data and gives an added transparency to the process (Ezzy, 2002, Strauss and Corbin, 2008).

Relationships between the categories arising from interview data were explored alongside ideas from observation and documents to develop 'themes' (Ezzy, 2002). The final stage in analysis was "selective" or "theoretical" coding: that is the development of a central narrative from the categories and themes (Ezzy, 2002, Strauss and Corbin, 2008). This final stage leads to the development of theory (i.e. a model describing the relationship between different concepts emerging from the data). This theoretical model should emerge from the data in a transparent way, and be checked back against the data and with respondents, but also tested against pre-existing theory.

All data was analysed and coded by DP, and independently analysed by BL. Informal comparison allowed the development of categories, themes and theory and increases the trustworthiness of the findings (Pope and Mays, 1996)). Open and axial coding offered a systematic process to transform raw data into themes and then theory. Immersion in the data, peer debriefing, validation with participants and triangulation with data from a wide variety of sources ensured the fullest possible understanding of the emergent ideas, and improves trustworthiness (Ezzy, 2002, Flick, 2006, Strauss and Corbin, 2008)

4.4.3 Reflexivity in qualitative research: journals, memos and models

The notion of reflexivity is important in qualitative research. This is best understood as self awareness, or perhaps 'turning-back one's experience upon oneself' (Mead, 1962). Throughout my research I kept an informal research diary. This allowed ideas

from interviews, reflections on process and links to pre-existing theory to be recorded to assist interpretation of data (Ezzy, 2002). “Memos” kept during coding, including connections and conclusions arising from the process, were used to aid subsequent analysis (Strauss and Corbin, 2008). The construction of diagrams and then theoretical models (both manually and within N-Vivo) helped both with axial coding and selective coding. The journals, memos and models included ideas from sharing data with colleagues, and from informal observation within the practice.

4.5 Summary

I have using a single descriptive case study to answer my research questions. Data within the case was collected from interviews, observation and documents over a twelve month period. Interview data was transcribed and analysed using thematic analysis within a modified grounded theory approach. Observation and interview data provided additional material and helped triangulation of findings. Issues of trustworthiness in case study research were acknowledged and where possible addressed.

Chapter 5

Sunnybank Medical Centre:
A portrait of a teaching practice

Sunnybank Medical Centre was purposefully selected as the case for my research following a process described previously. Chapter 5 presents a portrait of the practice, and reviews its history and the history of education within the practice. I consider how representative it might be of other UK teaching practices.

5.1 The practice profile

Sunnybank Medical Centre is a group practice in the village of Wyke, a satellite village of Bradford, West Yorkshire. The practice population of 10,850 patients (August 2009) is mainly white Caucasian, of slightly below average deprivation, and an average age profile (Yorkshire Deanery, 2009).

The practice comprises 16 doctors (10 partners, 2 salaried doctors & 4 regular locums); 11 nurses or health care assistants (1 nurse practitioner, 6 practice nurses and 4 health care assistants; all practice employed) and 12 attached clinical staff (10 based within the medical centre but PCT employed). These include a pharmacist, dietician, community matron, district nurses, health visitors and midwives. Supporting the clinical staff are a full complement of management and administrative staff including a practice manager, office and IT manager, and secretarial and reception staff (17 in all).

Table 7 **Profile of Sunnybank Medical Centre (2008/9)**		
	Sunnybank Medical Centre (August 2009)	**Average for UK/England/Yorks[8]**
Patient list	10, 850	6555 (England)
% under 25	30.9%	
% over 65	15.1%	
% "White British"	N/A	
Quality markers		
% achievement in QoF	99.5%	97.5% (England)
% with BP in recd. limits	83.9%	80.2% (England)
% with cholesterol in recd. limits	83.6%	81.9% (England)
% with HbA1c in recd. limits	78.9%	66.8% (England)
Medical staff		
Doctors (WTEs):	16 (10.5 WTEs)	4.1(3.7WTEs)
Partners	12 (8.5 WTEs)	
Salaried	2 (1.6 WTEs)	
Locums (regular)	4 (0.42 WTEs)	
GPs per head of population	1.08	0.64 (Y&H SHA)
Practice employed nursing staff		
Nursing staff (WTEs):	11 (5.93 WTEs)	
Nurse Practitioners	1 (0.35 WTEs)	
Practice Nurses	6 (4.38 WTEs)	
Health Care Assistants	4 (1.2 WTEs)	
Attached clinical staff (PCT employed)		
Attached clinical staff:	13	
Pharmacist	1	
Dietician	1	
Community matron	1	
District nurses	10 in total (8 based in practice, 2 elsewhere)	
Health visitors		
Community midwives		
Management & support staff		
Management & support staff:	17	
Practice manager	1	
Officer manager	1	
IT manager	1	
Secretarial staff	3	
Receptionist and other	11	
Total staff	**57 (44 Practice employed)**	

[8] **Sources: Yorkshire Deanery 2009, The NHS Information Centre 2009**

Table 7 gives a full staff profile, and compares the practice to available information on other practices within the local health region (Yorkshire & Humber) and nationally. This comparative information reveals Sunnybank to be above average in terms of list size (patient numbers), but near the national average in terms of the patient age profile and deprivation. Sunnybank is significantly above average in terms of doctor numbers, with a lower than average list size per doctor (even for a training practice). It is unusual in having a high number of partners compared to salaried GP staff. The range of nursing staff appears broadly typical of other training practices, though comparative data is hard to find (and confused by mixed employment).

5.2 Clinical education in the practice

Sunnybank was purposefully chosen for the wide range of clinical learners, across professional groups (Table 8). It is impossible to give a profile of a "typical" educational practice in a UK context, but the following provides a picture for England and for the local Yorkshire area.

There are 8,230 GP surgeries in England (The NHS Information Centre, 2009) with approximately 40% involved in medical teaching or training (33% medical undergraduate, 25% postgraduate) (Sources: Jones and Stephenson, 2008, Yorkshire Deanery, 2009). Within Yorkshire and Humber of 800 GP practices 264 are undergraduate teaching practices, 214 take foundation year doctors, and 240 are GP training practices: with most teaching practices involved in two or three of these activities (Yorkshire Deanery, 2009, The NHS Information Centre, 2009).

Within postgraduate medical training Sunnybank is typical in having more than two GP specialist registrars per year (England average 2.6 in 2008; The NHS Information Centre, 2009), and unusual in having 4 approved GP trainers (Yorkshire & Humberside average 1.5 trainers/training practice: Yorkshire Deanery, 2009).

One third of UK practices are involved with undergraduate medical education (Jones and Stephenson, 2008). The range of learners and the amount taught varies widely across the country (Average 13%, range 2-30%; Jones and Stephenson, 2008). Within the University of Leeds medical school 16% of clinical placements occur within a primary care setting (mostly within GP teaching practices), approximately in line with national figures. Amongst University of Leeds teaching practices Sunnybank is one of the largest in terms of student numbers (548 student days of teaching per year; average 139 s/days; range 16-814 s/days University of Leeds, 2009). Equivalent figures for nurse and nurse practitioner training are not available either nationally or regionally (mainly as this training tends to be more fluid rather than specific to particular GP practices). Sunnybank is a pioneering member of the practice nurse training scheme in Bradford, one of the first in the country. Much practice nurse training and professional development remains ad hoc and in house.

Meaningful comparative data is hard to find, but in summary Sunnybank has above average medical student numbers, is unusual in not having foundation year doctors and is typical in terms of postgraduate training practices. It is impossible to say whether Sunnybank is “typical” in terms of nurse or allied professional training, or in terms of its provision or continued professional development amongst its retained or attached staff. This would be hard to quantify, and comparative data is not available. In some ways this offers further justification of the qualitative approach taking in this study: the amount of support for continuing professional development of clinical staff might be as accurately expressed in subjective terms as numerical ones.

Table 8 **Clinical education at Sunnybank Medical Centre (2008/9)**	
	Sunnybank MC **Aug 2008/July 2009**
Nursing education	
PG nurse education	
Practice nurse trainees	2
PN Mentor	1
Nurse practitioner registrars	1
NP mentors/tutors	1
HCA in training	1
Medical education	
PG medical education	
Foundation Yr 2 Dr.	0
GP Sp. Registrars	3
GP Trainers	4
UG medical education	
2nd yrs	28
4th yrs	12
5th yrs	20
GP UG tutors	2
Other clinical learners	
Various	Occasional

5.3 A short history of the practice

This practice history was compiled with the help of the manager and GP partners, including a recorded and transcribed interview with two partners in May 2009. Quotations from that interview (indicated by brackets and small font) are used with permission. Their help is gratefully acknowledged.

5.3.1 A clinical history

Sunnybank was already a four man practice when the health service was set up in 1948. In the 1960's the senior partners died, being replaced by an original member of the Royal College of GPs, a man *"*very advanced for his time*"*. The practice was one of the first in the country to have practice nurses (though it took twenty more years for that vision to materialise).

At this time the practice was housed in *"*the old Sunnybank House which is up in the village [in] the original doctor's house from the 1890's complete with stable block for a doctor's horse and cart.*"* Personnel changes in the 1980's meant the practice *"*could have been the youngest four doctor practice in the country*"*.

These young partners approached the local health authority to request a surgery extension with the aim to *"*offer a good service but [also to discuss] our long term plans to become a training practice*"*. This met with *"*immense laughter ..... because in those days the idea that a practice in South Bradford would want to become a training practice was laughable."

In 1988 a new practice extension, still at the old Sunnybank House site, included a GP training room, allowing GPs in training to join the practice for the first time. Once the trainer started *"*very, very importantly he immediately had us all involved… … all of us did a tutorial every week so the registrars actually had four tutorials…"[GP A]; "So the ethos was that we were a training practice not… a practice with a trainer…" [GP B] That ethos has continued to the present day.

In 1997 the practice moved to its new premises on Towngate in the centre of Wyke. This gave room for an extension of the nursing team; including nurse led chronic

disease management clinics, and the introduction of health care assistants and phlebotomists who were trained from within the pre-existing administrative staff. The clinical team was supported by Susan Dawrant, practice manager from 1989 to the present day. By this time Sunnybank had *"*a vision of where we wanted to be even before we had mission statements and all of the rest of it…". Part of that vision was a desire "to be… a successful practice… we want to do well for our patients and also for us… but we don't want to work ourselves into the ground to achieve that… so the accountant every year moans that our staff costs are higher for the size of the practice that he would expect…"

Today the practice is the only one in Wyke, and viewed (in the partner's eyes) as "The Wyke practice". It has however *"*always been very frightened of patient groups and that sort of thing, thinking that they are just going to come along and moan…*"* though the partners interviewed pointed out "the feedback that you do get is we actually provide a service that most of the patients appreciate."

5.3.2 An educational history

Sunnybank's history of involvement with clinical education dates back to 1988, when the new extension was designed to include space for the first GP trainee. The first undergraduate medical students arrived in 1994, with a single fourth year student (from the University of Leeds). Second and third year students came in 1997, and fifth years in 2002. By this time Sunnybank had as many student days teaching as any University of Leeds teaching practice.

It is notable in terms of "trajectory" that the two partners being interviewed for the history both joined the practice in the 1980's and were both the first undergraduate tutors, and one a GP trainer. Both are University of Leeds graduates, as are five of the GP partners (including all those involved with GP training and undergraduate teaching). Five of the current GPs were previously GP registrars in the practice, and

> "we still have… [a] sort of mentoring role to a certain extent with some of the junior partners… who have been through the training system and they still come along and… are able to ask questions and chat things through and then we go to them because they are younger than us and they know better."

The period since 2002 has also seen a significant widening of clinical education, mirroring a diversification of clinical and practice-based learning within primary care. This has occurred in three main areas:

- Clinical science BSc students from the University of Bradford, who might progress to medical training or NHS clinical or management training routes (though this has temporarily stopped).

- Involvement with nurse practitioner, practice nurse, nurse prescribing and health care assistant training.

- An expansion of administrative staff training, including additional clinical skills (e.g. phlebotomy) and support for clinical work or education.

Diversifying the clinical education was "part of the ethos":

> "Why did we suddenly take on all of the nurse stuff? Because it was part of the ethos wasn't it… we can do it and… because we were happy to take on board… because it was resourced as well… and at the back of our mind always with these things is… is it worth doing from business point of view?"

The practice has strengthened and formalised the provision for continued professional development (CPD) for its clinicians. This includes weekly time for formal education on Wednesday afternoon and monthly half day closing for whole team education. This was set up to reflect the needs of external regulation of CPD (e.g. GP appraisal, nurse supervision) but also to address practice learning issues.

5.3.3 Looking forward

Part of looking forward is the reflection that even standing still with education requires planning:

> The thing that struck me this year is that we do need to start thinking about some sort of succession planning… I have got seven years before I retire but… you know, there is a lot of stuff that is going on that just happens because I… organise the other team members to do it… but another GP is going to need to take that over…

Part of the discussion around that planning was the identification of someone to take over undergraduate teaching, firstly of the fourth year students. This raises two points. Firstly; having a range of learners enables those interested in education to have a personal trajectory of increased complexity of teaching and training. Second

the likely person identified is a Leeds graduate, and a previous Sunnybank GP registrar. There is a personal and a practice trajectory of involvement in education.

The major physical development is the approval and current building of a substantial new extension to the surgery, complete with new clinical, administrative and educational space. This will allow clinical education to continue to expand, with plans afoot for medical students across all years of the new 2010 curriculum and an expansion of GP registrar numbers.

Chapter 6
Findings

Chapter 6 presents the findings from the case study. The findings are based on ideas emerging from interviews, observations and documents and are presented with explicit reference to their origin as codes, categories or themes. The first three parts consider data from transient, vocational and embedded medical learners, the fourth considers nurse learners, the fifth data from those supporting learning and the sixth brings ideas together from across all learners and professions as I consider the nature of being a teaching practice. This approach offers a thorough consideration of the evidence in the light of a trajectory of learning from junior to experienced medical learners. The separate parts for nurse learners and support staff allow their different perspectives to be highlighted. I present the findings in this way for four reasons:

- The journey from transient to embedded learners marks a trajectory of learning important within the social learning theory underpinning this thesis.

- The journey from medical to nursing learners represents the history of clinical learning within the practice and primary care (a great emphasis on medical student and registrar learning, and until recently a lesser one on nurse learning).

- Handling data from interviews, observation notes and documents was simplified by reviewing it within learner groups. Where repetition appears across groups it highlights important cross professional themes and differences.

- It would have been difficult to maintain anonymity of data from nurse learners without pooling their experiences in a single section.

Chapter 6 concludes by offering a summary in which I present a suggested model of learning which arises from the case study.

6.1 Transient learners: learning through engagement

A significant proportion of learners interviewed within this study were medical students (15 of the 33 interviewees). No apology is made for this. Medical students are a significant part of the chosen practices' focus within clinical education (and a significant part of the focus for many GP practices, far more for example than nursing or other health professional placements). Medical students also make an important subgroup of "transient" clinical learners. Whilst many may become GPs, they are actually attached to the practice only for a short period of time and that at a very early part of their career trajectory. Even the final year students are likely to have seven more years before they would be able to return as a qualified GP. These points are worth considering in the context of social learning theory, being on a trajectory of learning, or being engaged in meaningful experiences relevant to career.

The most important codes from the medical student data (in my interpretation though not necessarily numerically, I resisted the temptation to count codes) were:

> Feeling welcomed, highly organised teaching, support for learning, formal learning, challenge, high quality teaching, active learning, informal learning, learning from patients, engagement, motivation to learn, respect, developing identity, part of the team, belonging, being a teaching practice, community of practice.

Many of these emerge from the data, and overlapped closely with ideas from independent coding by BL. Some were ideas influenced by literature on social learning but also arising from interview and observational data (e.g. developing identity; belonging). Others were imposed by the interview schedule questions (e.g. being a teaching practice, community of practice). Some such as *support for learning, active learning, challenge* were strongly backed up via observational data. Documents supported the impression of *highly organised teaching, feeling welcomed and part of the team.*

Box 5
Identification of data sources

As I consider the data I will be explicit about sources of data, where ideas arose and illustrate the analytic process from codes, to categories to themes.

Sources of data are identified as:
Interviews: by number and identifier e.g. *Fifth year medical student Interview 9*
Focus Group Interviews: as above, with [FG] after interview number.
Observation: by reference to observational data (Table 6, page 62) as e.g. #Obs1
Documents: by learner type and date e.g. *2nd year med. stud. feedback 2008*

I have presented the medical student findings within a narrative framework from their feeling welcomed at the practice, through valuing the highly organised and supportive approach to teaching, to developing respect (for tutors and the practice), and to engagement with learning and motivation to learn. I then explore whether transient learners feel "part of the team", and how engagement with learning is linked with developing identity or belonging (if at all). This journey reflects that of individual students and appears to be part of a wider and longer journey experienced by vocational and embedded learners to which I will return in subsequent sections.

6.1.1 Feeling welcomed

Despite having a very short time in the practice medical students felt welcomed, supported in their learning and motivated to learn. They reflected on the high quality and excellent organization of the clinical learning they experienced, and often spontaneously illustrated this through comparison to other clinical placements. Medical students particularly appreciated the initial efforts at a clear induction and the settings of goals:

> …when we first came here they were very polite, they gave an introduction, what I needed to learn and… what you need to get out of this place. They were very straight with us, expected us to attend… you can only learn if you know exactly what is expected of you. Sometimes you go into places and you don't know what is expected or anything you know…
> (Fourth year medical student Interview 25)

> The main thing that stands out about this practice… actually it was really good… on our very first day we got a proper full introduction, we got shown around the practice and we got an introduction to the timetable. They also explained what they were hoping us to… what we were going to do and what they hoped we would achieve out of it which, doesn't always happen. Other placements, not necessarily general practice just in general… you would have

> just turned up on day one and find which consultant you were supposed to be with and that is it whereas this one was really a focused, clear introduction… so that obviously helps you feel welcome.
> (Fifth year medical student Interview 19)

These findings are confirmed by student feedback, where students felt strongly or very strongly that they were "welcome on the attachment" *(*Fifth year student feedback 2008 & 2009***).*** This sense of being welcomed and indeed respected was often placed in contrast with previous experiences, particularly on hospital placements:

> …stood in the middle of the meeting bit on the ward and its like 'excuse me, excuse me, you are in the way, move here, move there, you can't go there, have you done this, have you done that' whereas here it is like 'Oh are you medical students? Go through to room twenty-five.' As soon as we were through the door… 'Medical students room twenty-five, he is waiting for you.'
> (Third year medical student Interview 7)

Whilst the majority of students felt welcomed in the practice, this was not the universal experience:

> **Student C** We always seem like we are intruding when we come in on a Friday morning to be fair…
> **Student B** Yes…
> **Student C** Not from [the GP's] point of view but… the receptionists…
> (Second year medical students Interview 23[FG])

> I don't know how you improve being more welcoming and… making medical students as part of the practice team in a big practice like this… but I guess that is one area that they can look at to improve..
> (Fifth year medical student Interview 20)

Part of feeling welcomed is likely to arise from very clear information provided to all students ahead of placements, including phrases such as:

> The team are looking forward to you joining the practice knowing that the practice as well as you will gain from the experience.
> (Practice information for medical students).

6.1.2 High quality teaching, highly organised teaching

There was a strong consensus from students across all years that they considered the teaching at Sunnybank of the highest quality. Most of those interviewed were in their final years and had a range of previous placements (both in general practice and hospital) to reflect on. High quality teaching appears in the students' eyes to relate to

being supportive and student focused, interactive, taught by the expert in the field, and involving tutors who were prepared to challenge where mistakes were made. This consensus was strongly supported by observational data where the balance between tutors encouraging and supporting students whilst probing and challenging them was very evident (# Obs1 & 4). The following extracts from the interview data illustrate these points, but there were examples across all interviews:

Support for learning; student focused:

> [The three GPs who are] doing the tutorial will say you need to know that, go away and read that and it is nice because you do not often get that. People just go, you should know this, well there is a lot things that I should know but to actually to be given a title and certain key things to go away and learn is extraordinarily helpful, they will say just go home tonight and read up on ..I don't know anything…. and that is probably the most direction I have.
> (Fifth year medical student Interview 9)

Active learning was encouraged through having time with appropriate patients, and small group sizes:

> It was a sound introduction to cardiac history and examination as we could discuss the skills and then were always given the opportunity to try them out at own pace as the patients were able to wait around as long as we needed.
> (Second year student feedback 2008)

> **Interviewer** So how do they encourage your learning then in these tutorials?
> **Student** They are very interactive, very interactive… we usually go around the table and ask each other questions and they are not… it is much more effective than a large group. When there is only four of you, you don't feel intimidated to ask questions or if you get something wrong.
> (Fifth year medical student Interview 19)

The fifth year assessment meeting (#Obs1) and third year teaching session (#Obs4) strongly backed up the idea of *active learning*. Students were skilfully engaged, involved and stretched in each case.

Expert teachers:

> **Student** … for example if it is a diabetes tutorial then the GP with special interest in diabetes will teach that.
> **Interviewer** Yes, yes…
> **Student** So that is quite good because in a hospital… comparing it to a hospital setting sometimes you don't get the consultant teaching you about it so you

> get maybe junior doctors who can talk a bit here and there, odd things but not in depth.
> (Fifth year medical student Interview 20)

Challenge:

One feature of active teaching, and of the respect seen between students and teachers, appeared to arise from being challenged. Students were observed to be questioned, challenged, and pushed to give evidence for answers they gave (#Obs1 & 4).

> You learn from the patient as well because you are actually in charge… you literally listen to their experiences but you also learn from the GP because they correct you if you make mistakes, they will chip in here and there so…
> (Fourth year medical student Interview 23)

Medical students across all years recognised and valued the high level of organisation in their Sunnybank placements:

> **Student C** Patients have always been brought in for us which is a good thing.
> **Student B** With signs and symptoms that are related to what we are actually studying, whereas in the hospital sometimes people that you were going to see have got worse or they have got better and have been discharged so we rarely see anyone with signs and symptoms.
> (Third year medical students Interview 7[FG])

> **Student** **…** you wouldn't believe how just knowing where you are supposed to be from day to day and what you are doing has a huge impact on what you actually get out of that experience.
> **Interviewer** Yes and you… you would say that is good here?
> **Student** Yes definitely, I would say this is one of the best… well organised placements that I have had… ever I think!
> (Fifth year medical student Interview 19)

Fourth year students appreciate both the well organised timetable, and the ability for patient contact and active learning within consultations. Once again (and spontaneously) contrast was made to learning elsewhere:

> I have found it very organised and structured here… obviously you just come in and you go along with the GP's and they let you do as much as they can really whereas in hospitals they tend to be a bit kind of crap… for want of a better word! They don't turn up to a lot of teaching and the teaching is often not organised very well
> (Fourth year medical student Interview 26)

In the final year, the students remain highly appreciative of the structured teaching, the quality of the tutorials, and the way learning was pitched to their needs. Students valued the opportunity to reinforce theoretical learning with patient examples:

> We can learn about something specifically, learn the theory behind it and talk about it and iron out the pieces but we can then put that into practice immediately while it is still fresh in our minds.
> (Fifth year medical student Interview 19)

The student impressions of the practice being highly organised was backed up by their written feedback to the University, and by the clear evidence from information provided by the practice to all students both prior to arrival (e.g. map, practice profile, placement objectives) and at induction.

6.1.3 Formal learning, informal learning, reflective learning

The drive to provide highly structured opportunities for learning might crowd out the flexibility or space for informal learning. This is a theme to which I shall return when findings of other clinical learners are discussed. Students do recognise opportunities for informal learning and reflection, but often in unexpected places:

> When we are on the bus on the way home we have got a good idea to chat over what we have done so that is reflection of a sort isn't it.
> (Second year medical student Interview 23)

Other responses suggest that openly encouraging reflective learning isn't one of the practice's strong points:

> **Interviewer** …any examples of reflective learning while you have been here?
> **Student** I always try and reflect on what I have done in the day but… not really, not formally… I haven't been asked to reflect.
> (Fifth year medical student Interview 19)

…but equally that the style of teaching, including challenge and feedback naturally encourages reflection:

> I am reflecting all of the time, what I did well and what I could have done better… because when the GP tells me 'well what about this?' it is making you think 'well I could have done that better' and if you see a GP consultation, a similar one to what you have done…you can reflect on that and actually see what you should have done.
> (Fourth year medical student Interview 25)

Whilst the theoretical advantages of having many student learners and other clinical learners in the practice was acknowledged, it was striking that there was little discussion of how useful it was in terms of learning. There is perhaps unrecognised peer learning amongst and between student groups, though from indirect observation it appears students are relatively isolated both from different year groups and from other clinical learners.

The fourth year medical students recognised the value of sometimes having two students in a consultation:

> There are two students in a consultation; there is me and another… John… and there… basically… when he is doing his I make a lot of notes… things he does well. It is good to watch someone else doing it as well, you learn that way.
> (Fourth year medical student Interview 25)

The second, third and fifth years come to the practice in groups (normally of four) and with the exception of the third year example below they did not believe (or recognise) that learning occurred from each other (though perhaps the question could have been rephrased or pursued). The finding is surprising, and contrasts with a strong emphasis on informal learning amongst more experienced clinical learners.

> We all sit up here and we are like oh I noticed this, I noticed that, I did this wrong, I did this right, yes I think we learn from each other. I certainly do anyway.
> (Third year medical student Interview 7)

> **Interviewer** What does a typical… learning event if you like, what does it involve?
> **Student** A learning event, do you mean tutorials?
> **Interviewer** Well, it could be anything I mean I don't know do you have any more informal learning I mean… as a group or..?
> **Student** Not really here.
> (Fifth year medical student Interview 19)

The impression is that learning is of high quality, highly valued, and highly structured – especially where group teaching occurs in early years and final year placements. One consequence of Sunnybank's highly organised approach may be that the potential for informal interaction between learners is overlooked, and the theoretical advantage of having multiple clinical learners together is lost. This is a theme I will return to with vocational and embedded learners.

Learning from patients, active learning:

Medical students are stimulated to learn from seeing patients, especially where active involvement was encouraged:

> **Student** When you actually see the patients yourself… like the conditions, it makes you more interested in that condition because you have been involved in it… so it encourages you to read up on it.
> **Interviewer** Yes… yes so have you done… I mean it is a bit of a throw away question or whatever but have you read more here than you have in other placements?
> **Student** A hundred percent yes… I would say twenty times as much in this place but I read mainly like clinical medicine you know, that book because it is all clinical stuff here… and it is not all theory from books where you don't even know why you are reading it… here it is more focused so if I see someone with… I don't know… come in with a red eye, I will look up causes of red eyes and read up a bit more about it and make the notes in the GP's and then when I go home I may quickly read up on it.
> (Fourth year medical student Interview 25)

The stimulation to learn comes from the nature and complexity of the clinical cases seen:

> Here there are interactions between conditions which is something new that we have not sort of covered before at medical school, which is popping up now at this stage so that what interests me and what pushes me to read up myself
> (Fourth year medical student Interview 1)

Just seeing patients was not enough to stimulate learning, rather it was active involvement with consultations which was appreciated. Medical students valued this *active learning* and appeared to appreciate both the responsibility but also the feeling of mutual trust between learner and tutor:

> The idea that a patient comes in, actually you are the first person that they see, you gather all the relevant details and it is important that you get those because the GP's are then going to come in and ask one or two questions of anything that you have missed and then being asked to decide well what would be the management that you think you would go for, is quite new and quite enjoyable really. Again you get the feeling of a bit more responsibility.
> (Fourth year medical student Interview 2)

> The doctors speak to you on your level rather than that consultant student relationship where you are always looking up at the consultant for answers.
> (Fourth year medical student Interview 1)

Not all students were happy with the level of patient contact. Indeed a significant minority of fifth year students commented on this both on the feedback "checklist" and within additional comments:

> There was a significant lack of patient contact. This meant there was not sufficient opportunity to complete any practical skills in my portfolio.
> (Fifth year medical student feedback 2009)

6.1.4 Recognition, relevance, respect and emotion

So far we have seen how transient learners feel welcomed, and learn in a setting noted for its highly organised, supportive teaching environment. Informal learning may not be maximised, but students enjoy active learning opportunities with a patient focus. I now move onto a series of categories emerging from the data which appear to explain why the learning environment is highly valued.

Recognition

My first category is *recognition*. Students consistently reported feeling welcomed, supported and valued even though they would be in the practice a matter of weeks at most. These findings are supported through observation, with *approachability* and particularly *humour* noted from direct and indirect observation (#Obs1&4). The category *recognition* includes the codes *feeling welcomed, support for learning,* and *time for learning:*

> [The GP] makes a big effort do you know what I mean, he remembers everyone's names, makes an effort to speak to you about non-medical related, he has a bit of a joke now and again, you feel comfortable around him.
> (Third year medical student Interview 7)

> They all know us by face, by name and we can sort of stop them in the corridors anytime for a chat or any issues and we have been made aware about that, if there are any issues or anything that we want to sort of pick up on or learn we can always find a doctor with free time to teach us
> (Fourth year medical student Interview 1)

This was corroborated through student feedback:

> The GPs were encouraging and took the time to get to know us and subsequently gave us informed and useful comments at the assessment.
> (Fifth year medical student feedback 2008)

I have referred to this category as *recognition* partly as it contrasts with being ignored or feeling anonymous elsewhere in their clinical learning:

> Everyone is really friendly and you share a staff room with them and stuff… kind of… chat to you as another member of staff really as opposed to you know, in hospital and stuff sometimes you can feel 'you are the students'.
> (Fourth year medical student Interview 26)

> On the wards doctors change on a daily basis and the nursing staff is obviously in greater numbers. You do not know everyone, the patients change quite regularly. Here we know the doctors well enough to ask them for help, stop them to have joke with them when required whereas on the wards you might be asking an SHO……that you have never even met before.
> (Fourth year medical student Interview 1)

Relevance

The second category is *relevance* which links ideas regarding the high quality teaching, active learning and patient centred learning mentioned above. A frequent observation across student year groups that teaching was "pitched at the right level" and linked explicitly to the curriculum:

> The staff have been really good at… kind of explaining things and pitching at the right level
> (Fourth year medical student Interview 26)

> The doctors that we are involved with have a very clear idea about what we are expected to gain from this… in terms of the level that we are at academically and in terms of the assessments that we have to do and facilitating that for us.
> (Fifth year medical student Interview 19)

…… and because of the general relevance of the teaching the boundary between organisation and serendipity begins to blur:

> [Part of] the curriculum that we have been dealing with whilst we are here is the endocrinology aspect of what we have to learn this year, one of the conditions involved there being acromegaly and almost by chance, you almost thought it would have been planned, a patient came in this morning with wonderfully, florid, textbook signs of acromegaly.
> (Fifth year medical student Interview 9)

Some final year students suggested teaching was of a high quality but that often it was too theoretical and lacking the responsibility and freedom they would like at that stage of medical school:

> I think I speak for everyone that we have definitely gained from it and we have definitely learned a lot from it that will be useful in our final exams and beyond. The downside of being here… it would be nice to have a little bit more clinical experience on our own, rather than just sitting in with the GP's. It would be nice to have a room to see patients and then present them to the GP, so that we can consolidate what we have learnt.
> (Fifth year student Interview 15)

This relevance in learning doesn't happen by chance. One GP educator pointed out:

> The actual teaching sessions are geared to their [the students] learning needs in that that they set the agenda, they set the learning objectives and the fact that we do try to use different innovative teaching modalities to make sure that they get the most out of the session.
> (GP Interview 4)

Respect

Medical students across year groups appreciated the time, effort and level of care put into teaching and being valued and recognised within the practice. The language used in interviews suggests a high level of *respect* for the practice and GP tutors.

> From speaking to friends… it seems a bit different you know…. sometimes their [hospital] consultant will be busy or with someone else so they will wait around for ages or… other times they will be on wards for ages whereas we ..… we do one interview and then we come up here and talk about it, go back down and do another and then come back up… you know, we know what is going on.
> (Second year medical student Interview 23)

The high level of respect across students and tutors was clear within the meeting both from directly observed meetings (#Obs1&4) and indirectly observed encounters. Part seemed to be based on GP tutors doing what they said they would (written University feedback reinforced student views that teaching was highly organised, and placements were, in general, excellent). In meetings relationships between student and tutor appeared relaxed, equal, and were noted for their humour, laughter and banter. I suggest that signifies respect, not disrespect, as it occurred in a context of challenge, praise and active engagement with learning (#Obs1&4).

Students also suggest that they felt respected and trusted by both clinical and administrative staff. The following was a student reflecting on his involvement with a patient with chest pain, and one example which perhaps best demonstrates the link between involvement, trust, respect and learning:

> I felt really part of his care and also… [the GP] trusted me to do the blood pressure which I did do, I gave most of the history which he wrote on the back of the sheet for the hospital so… yes

> I did feel part of that whole experience which was really good. So I feel like I have been trusted and in terms of team effort… yes we work as a team and the nurses trust me to do stuff, the doctors trust me to do stuff…
> (Fourth year medical student Interview 25)

Trust was also linked to motivation for learning:

> [This placement] made me feel a bit more motivated to do well at medical school and become a doctor because of the amount of trust that you get from people.
> (Fourth year medical student Interview 1)

Students also noted the respect shown between professional staff in the practice, and towards clinical learners even if transient:

> The teamwork between the nurses and the doctors is great, it is really good, everyone respects the job… the doctors… you don't see that in hospitals……..here the doctors are like 'nurses are so good at following protocols, they do a better job than I could do' …[and] the nurses have said 'oh I couldn't do a doctors job you know, they do such a good job' and that is great to see you know, actual two sides working together really well

> When I am with the nurses … I learn lots from them but I think they learn stuff from me as well sometimes and… ..it is so friendly and everyone is so nice……. you know, even sometimes in the doctors consultations I chip in and say something… its like 'oh you should have told me that before… that was a really good idea to manage this patient' so you feel part of that rather than sometimes if you say that …..in the hospital if you say something to them it is like 'no, I know best' you know… that kind of attitude… but here they respect your opinions and stuff.
> (Fourth year medical student Interview 25)

Emotion

Emotion links a variety of ideas emerging from the interview and observation data. All were areas causing clinical learners to sit up and listen. All seemed to involve an emotional response triggered by either tutors, patients or both. The various elements of *emotion* are best illustrated directly from the quotes below. Codes from analysis are italicised. Responses span the student year groups.

Medical students across the years were at times concerned about being placed in situations *outside their comfort zone*, but recognised these situations allowed learning to occur:

> He obviously gave us information in the first week, he gave us like a history taking sheet and everything… but then he just lets us get on with it, sort of threw us in at the deep end.. which I think is good because you all learn by doing that.
> (Second year medical student Interview 23)

> I thought I would be comfortable with a lot of situations but some of them…you are not as comfortable when you are actually in them. Someone crying their eyes out at you…you know, you learn stuff about yourself.
> (Fourth year medical student Interview 25)

Across the range of medical students (and indeed amongst other clinical learners) the willingness of their tutors to ask questions and *challenge* them was deeply appreciated, and was felt to be closely linked to learning:

> [The GP] … was very critical on what we did and very honest and very critical on what we did, it wasn't an easy morning. It was quite challenging but I definitely came away from that feeling like I learnt a lot and improved.
> (Fifth year medical student Interview 19)

> They don't give you the answers handed on a plate, they want you to find them yourself… when you are in a consultation they want you to make those mistakes so you realise where you have gone wrong and if you do make those mistakes, they don't look down on you for it… they just say 'well what about this?' or 'what about that?' and it makes you realise that you have made a mistake. So they encourage your learning that way…
> (Fourth year medical student Interview 25)

> If nobody asked you a question, you are never going to know what your learning needs are and you are going to think you know, nobody is going to ask me that, I am not going to learn it.
> (Fifth year medical student Interview 8)

One recurring theme from the interview data was that learning appears at times to be triggered by surprise at the quality of teaching, and the fact it *exceeded expectations*:

> To be honest I was a bit disappointed when I heard we were at a GP's for our first placement as I was keen to get into hospital but now I'm raving about it to my colleagues and think it's a great idea.
> (Second year student feedback 2008)

This was often highlighted by poor experiences in other settings:

> **Student C** [The GP] takes the morning off to teach us…
> **Student B** It is not just like… I feel like in the hospital the consultant is with loads of students just following them around, the consultant just tells them what to do whereas this is just real teaching you know… it is good.
> **Interviewer** So does this practice environment stimulate and motivate you to learn… from what you have said?
> **Student A** Yes we have a… the first week we came here we had a little glow when we walked out!
> **Student B** Yeah!
> (Second year medical students Interview 23[FG])

Students were frequently, and across the spectrum of experience, impressed by the energy and e*nthusiasm for teaching* at Sunnybank.

> They are very… very up on teaching, they love teaching you can see that… you can tell when someone just wants to teach…you know, teach for a bit of money from the Uni or whatever, but when someone actually enjoys teaching you can actually see that.
> (Fourth year medical student Interview 25)

> Everybody wants to share their information, their knowledge, their expertise with other people and in that kind of way also encourages your learning because if you have got… it is nothing worse than having a doctor that does not want to teach you and you just feel very unmotivated and you can't be bothered.
> (Fifth year medical student Interview 8)

Finally, there were exceptions where the medical students do not appear emotionally engaged with the teaching, and this does appear to inhibit learning. This particularly seems to occur with the final year students where *some* considered the teaching was in many ways over organised:

> The tutorials that we have had have been brilliant and I think they should stay but it would be nice instead of just sitting with a GP in pairs it would be nice to see a patient separately and formulate a management plan and see what we think is going on and then present that to the doctor so that they can agree or disagree!
> (Fifth year medical student Interview 19)

> I think we should be given a little more laxity in the timetable to suit our own learning needs- for example somebody may not feel a session with the nurse every week is useful if it is just repetition as we are at the stage where we know our own areas of weakness.
> (Fifth year medical student feedback 2009)

6.1.5 Engagement and motivation

My interpretation of the data has highlighted a journey of student learning. The journey started with feeling welcomed and impressed with the highly organised structured teaching. Four major categories could be identified which underpin learning in the practice for these transient learners: *recognition, relevance, respect and emotion.* These may all be important elements of *engagement* in a clinical learning environment, at least within transient learners. How does engagement link to learning, and motivation to learn?

> I have just done psychiatry… I have met depressed people and I just didn't get the same… I wasn't in the consultation, I wasn't involved… …you know having the GP there… it makes it a lot better. I never really understood depression and how it impacted someone's life until this

> lady came in, even on my psychiatry placement I didn't understand it and that is because I was under pressure I guess.
> (Fourth year medical student Interview 25)

The same student went on to explain the difference, in his eyes, with other learning environments. The difference would appear to be about *engagement*:

> You are literally being a GP, they are guiding you… so you don't make mistakes. So you have got the full responsibility rather than in the hospitals… where you see a patient and they are like 'ok examine his hands' or 'examine his chest'.
>
> [In hospital] you don't really know much about them, you are not really recording any notes and then you don't see them anymore……
> (Fourth year medical student Interview 25)

Motivation is a category emerging strongly from the data from a variety of concepts derived from open coding including *motivation for learning, learning from patients* and *learning from each other*. Motivation to learn comes from both the impact of meaningful patient encounters (including relevance) and the other elements already mentioned that make up engagement (respect, recognition, emotion). Motivation appears to be frequently triggered by a patient encounter but in a context where it is out with the normal (whether in terms of how patients present, how teaching occurs or the relationship between tutor and student). My suggestion for transient learners therefore is that motivation occurs through engagement with the learning environment and meaningful patient encounters within that environment.

6.1.6 Being part of the team, belonging and developing identity

I have suggested for transient learners how engagement and motivation might occur to allow clinical learning. In this final section in the chapter I wish to explore ideas around the concepts of *being part of a team*; *belonging* and *developing identity.* These ideas arise from the data but form a category linked to the social learning literature which I have termed *trajectory*.

Part of the team

Social learning theory suggests that learning occurs through meaningful engagement, legitimate peripheral participation, and in communities of practice through being part of a team. How does this suggestion hold for transient learners in my study?

Medical students were divided about whether they felt *part of the team*. Whilst almost all felt welcomed by GPs and practice staff, some considered they were too transient or peripheral to be part of the team. One quote nicely illustrates the problem students had in answering the question:

> **Interviewer:** There is a question here now about being part of the team… do you feel part of the practice?
> **Student:** Yes and no, …… yes because we are here for four weeks and you get to know the staff and you get to know people and that is kind of a good thing about GP's… in general practice placements in general is that you do see the same people all of the time, you get that continuity and feel welcome which is definitely how I feel here. I wouldn't say I was part of the "team" but I think that is because I am a medical student rather than a doctor… you are always one step apart.
> (Fifth year medical student Interview 19)

The students considered that to be part of a team you needed to be useful, to make a contribution. In general they didn't feel that was the case:

> …you are not really a part of the practice, you are not actually helping patients, you are not diagnosing patients, you are not treating patients, you are really a bystander in the practice and that is not a bad reflection on this practice it is just how you feel in any practice because you can't, at least for me, I can't feel part of a team unless I am doing something useful in a team.
>
> They definitely are very warm and very welcoming and [that] definitely helps you feel like you are not in the way and that definitely helps you feel like you are being appreciated and that you are part of a team but I would definitely not say that I was a useful aspect of the team, definitely more of a bystander or observer.
> (Fifth year medical student Interview 8)

Where exceptions occurred a sense of satisfaction was palpable. The students concerned considered that meaningful involvement enhanced their learning. These more positive comments regarding being part of the team or practice come from the fourth year medical students who are generally taught individually in surgery within

an apprenticeship model (as opposed to students in other years who have a more structured placement in groups of four):

> In a lot of ways quite a part of the team, with the GP's kind of getting to ask the history you feel, you feel like you are starting to make decisions and things with the GP and yes so you feel… and certainly actually more so I have done in a lot of placements in the hospitals before.
> (Fourth year medical student Interview 2)

> **Interviewer** Do you have anything else that makes you feel that you are actually part of this practice?
> **Student** Just the nature of the staff really, they are just sort of really chatty and friendly and they have a lot of time for you and stuff… I think that is sort of what has made the difference for me personally.
> **Interviewer** And do you find that right across the board or is that just GP's or…
> **Student** No, no right across the board sort of admin staff, nursing, GP's… probably admin and nursing staff more so because the GP's are sort of busy all of the time.
> **Interviewer** Yes… so do you feel that this helps contribute to your learning?
> **Student** Yes I think it does because I think that it makes you… you just feel more relaxed in the environment and you just feel more… I suppose that is it really you just feel more at ease and more comfortable and I suppose… more confident as a result.
> (Fourth year medical student Interview 26)

Once again, students spontaneously made a contrast to the learning environment in hospitals (this comment coming from the same student who felt above that he could not be part of a team unless he was useful):

> Hospitals they are a very lonely place. People… you tend to feel in the way in a hospital, at least that is how I have felt so far and but in a GP it is really quite a warm and friendly environment which really does help because you do not feel like you are being isolated and you feel that people are there to help you and you get involved in management plans……that really helps make you feel part of a team.
> (Fifth year medical student Interview 8)

The GPs actively encouraged students to feel part of the practice team, but acknowledge this is often a challenge:

> **Interviewer** Do you try to make learners feel part of the practice?
> **GP** Yes… it… it is a bit difficult… I keep coming back to the fifth years… in some ways there is a big lump… for us there are four or five at a time and it is hard to get them involved… plus with the amount of other things that they are doing with us… or while they are attached to us… they are doing a day a week at the University… this, that and the other… there is not as much time for them to see patients… and to see them again and again. With the fourth years because they are with us for longer and there are only two of them… they do spend more time face to face with patients and they have been very useful for me recently
> (GP Interview 28)

The notable exception to feeling part of the team came from the most junior students. Four were interviewed during a focus group. These second year students come to the practice on Friday mornings only over a period of weeks:

Interviewer Do you feel part of the practice here?
Student B No…
Student A I wouldn't say that we were part of the practice… no…
Student C [The GP] is very welcoming but other than that we don't really know anyone else or…
Student B No…
Student C We always seem like we are intruding when we come in on a Friday morning to be fair…
Student B Yes…
Student C Not from [the GP's] point of view but… the receptionists…
Student B Not the friendliest!
(Second year medical students Interview 23[FG])

Transient learners only feel part of the team when they are involved and contributing. That is something which generally does not happen, especially within groups of learners. In social learning terms participation does not appear "legitimate", though it is perhaps still "meaningful". Not being part of the team does not seem to stop clinical learning from occurring provided the elements making up *engagement* are in place i.e. respect, relevance, recognition and emotion.

Belonging

Medical students described significant learning interactions with patients and with their tutors. I would suggest from my data a distinction needs to be made between *engagement* and *belonging*. Students have a sense of engagement with learning, but not a sense of belonging. This contrasts with some of the findings relating to vocational and embedded learners (from all professional groups). These will be explored in the next sections.

Developing identity

Few medical students considered that their placement helped develop their professional identity, even amongst final year students who may be viewed as

apprentices (and are certainly considered so in recent recommendations for undergraduate student education).

> **Interviewer**: Does learning in the practice help develop your identity or role as a professional here?
> **Student** Not really…
> (Fifth year medical student Interview 20)

Others tentatively disagreed, answering the same question:

> **Student** I suppose it does…feeling part of the team…and seeing patients in an actual consultation makes you feel more like a doctor and less like a student maybe…
> (Fourth year medical student Interview 26)

Many students were however impressed by the GPs as role models, particularly in helping develop professional behaviour and attitudes:

> In a GP practice you really do get a really good chance to observe doctors handing over to patients, extracting information or even dealing with difficult situations you know, that really helps you to kind of copy it or mimic but it helps you learn what is good to do, what is bad to do, what helps and I think that helps to develop your professional attitude and behaviour.
> (Fifth year medical student Interview 8)

> Watching GP's and the way that they are in the practice… which they are really good here, makes… strives me to be like them you know that kind of thing. I think that they are very professional… and I think I use them maybe as role models ...… that encourages me to be a good doctor and it is very motivating.
> (Fourth year medical student Interview 25)

For the same student the placement was significant in terms of their career intentions:

> At the start of our GP placement they said … 'whoever wants to be a GP sit on that side of the room and anyone who doesn't the other side of the room' and we had to talk about the good and bad… ……I was on the side 'I don't want to be a GP'. I was participating saying 'it is mainly old people's coughs and colds… there is no real benefit… you are not actually dealing with real cases.' I was saying stuff like this but actually being here… this is the sudden shock…I actually do want to be a GP now. I think maybe it is to do with the doctors that are here, the way that they are you know… I love the way that they know everything about someone… if they walk through the door they know the history of the family and you know, because that is important you know, the way they live and if there is problems in the family like someone is getting divorced… that you know, is important when treating their illness. I have just shifted to be… becoming a GP. I can't think of doing anything else to be honest.
> (Fourth year medical student Interview 25)

Some students didn't consider that their GP placement would help develop professional identity, though many did see the placement as part of a *trajectory* of learning. Perhaps students are too early in their career to consider abstract terms such

as “identity”. The finding contrasts with findings from vocational and embedded learners (see later). It suggests for many transient learners there is a disengagement from Lave and Wenger’s central tenets of belonging and developing identity.

6.1.7 Learning environment, being a teaching practice, communities of practice

Three further important categories l*earning environment, being a teaching practice and communities of practice* have elements which cut across both levels of learner experience and professional boundaries. They are considered later in this chapter in Section 6.6.3 “Reflections on being a teaching practice” (p 153).

6.1.8 Transient learners: summary of findings

- Transient learners have clearly felt, in almost all cases, welcomed across the practice and at times (particularly in fourth year) have felt part of the practice team.

- They have on many occasions felt engaged and involved with patient care during consultations, and actively involved with learning outside patient encounters.

- They have felt challenged and at times pushed beyond their comfort zone, but in general have welcomed that and recognised its value in encouraging learning.

- They feel respected and valued, and in turn respect, value and recognise the high quality of teaching on offer (whether formal, via patient encounters or informal).

- They mostly feel teaching is relevant to their needs, and feel those needs are acknowledged and addressed. Where this isn’t the case it is mostly with final

year students who perhaps want a more informal patient centred apprenticeship model (such as they often recalled from their own fourth year placements).

- Transient learners appear to learn from engagement and being involved, and this happens even when they do not feel part of the practice or a sense of belonging.

- Engagement itself appears to occur through a combination of recognition, relevance, respect, and emotion. Emotion in learning might arise from challenge, exceeding expectation or from enthusiasm of tutors.

- Some transient learners recognise the development of professional identity, role modelling and career progression although this appears to be a small part of their overall experience (and not obviously central to their learning).

- Transient learners almost all contrast their positive experiences in this placement with negative ones elsewhere, usually to suggest a lack of recognition, relevance and respect in hospital placements.

6.2 Vocational learners: Findings from interviews with GP Specialist Registrars (GPStRs)

Sunnybank has almost equal numbers of vocational learners from the medical and nurse professions (the latter including learners at health care assistant, practice nurse and nurse practitioner level). In this section I concentrate on those training to be GPs. There are three main reasons for this:

- In terms of impact on the practice the GPStRs are a larger group, normally in full time training (by contrast to most vocational nurse learners) and directly employed.

- In national terms GP training forms an important field of clinical learning, occurring across at least 25% of UK practices. The same is not yet true for nurse learners in general practice; though a considerable amount of part time vocational training occurs, including in house professional development.
- I wish to develop the idea of trajectory in learning which has emerged from the data (and literature). It is illustrated most easily within postgraduate medical learners. I will consider the unique features of nurse learning separately.

It might be expected that vocational learners would fit more closely to the theory of social learning and communities of practice than was the case with transient learners. Vocational learners have elements which are common to theories of social learning (meaningful engagement, belonging) and to communities of practice (trajectory).

Specialist training to become a general medical practitioner comprises of a three year compulsory training scheme, commencing immediately after two years of post medical school foundation year posts (which may include four months in general practice). The specialist training includes eighteen months in approved GP training practices, usually divided into an initial six month period in one practice, and a final twelve month block in another. A unique feature of training compared to other professions is the close association with a named GP trainer, and the provision of protected supervision time in the practice setting. This may be as close to an apprenticeship model as is seen in UK medical training. Sunnybank is an approved GP training practice, and slightly unusual as it has three GP specialist registrars at one time (although having multiple registrars is becoming more common).

Individual face to face interviews were completed with all three GPStRs present during the academic year under study. One was in the first six months of training, two in the final year. The GPStRs were regular attendees at protected learning time. Observation data from those meetings helped to strengthen ideas from interview data, as did documentary data from feedback forms.

I have approached this section in the same way as for medical students; a trajectory from feeling welcomed to the practice, to engagement with learning, developing identity and belonging. Repetition of ideas helps emphasise important categories of data, but excessive repetition is avoided by concentrating on what is different (particularly *being part of a team, belonging and developing identity).*

6.2.1 Learning in general practice, learning at Sunnybank

In common with transient learners the vocational learners at Sunnybank felt welcomed, and considered the learning to be highly organised, supportive and of high quality. GP registrars are often five years more senior than the students and so have a far wider experience of learning environments and a wider variety of clinical colleagues with whom to share experiences. In addition they are employees of the practice and perhaps more motivated to learn. There is no reason to expect their experience of clinical learning in the practice would be equivalent to student learners.

The GP specialist registrars at Sunnybank strongly felt that the learning environment in general practice was a mixture of excellent one to one support (from a dedicated trainer), support from the wider infrastructure of training (e.g. educational supervision) and support that comes from having time reserved for learning and an expectation of reflection on cases. The overall approach to GP training was thus considered strong, something at times emphasised through contrast to training elsewhere, for example within the hospitals posts which contribute to GP training.

This combination of being *highly organised*, *support for learning* and *availability of support* was particularly well developed in Sunnybank:

> It is an excellent practice for teaching purposes..… you are very well supported, regular supervision sessions there is sort of a different angles of teaching, non-clinical, clinical, one to one supervision, you have adequate time to complete your assessments and keep up with my portfolio.
> (GPStR Interview 11)

As with the medical students appropriate clinical and administrative support appears to be a strong feature of clinical learning at Sunnybank. GPStRs distinguish between the basic level of support, particularly from administrators, which allows learning to occur and two elements of clinical support: availability and quality.

Support for learning (from the administrative team):

> More often that not I would go and ask the admin girls and receptionist more questions than anyone else because just the simple day to day things about how you get on… how you do things on your computer, who you need to contact for this number or something, you know, they are really, really useful.
> (GPStR Interview 13)

> I am well supported and well organised in terms of logistical sort of… the doctors bag and the communication and everything which although might not seem directly linked in terms of teaching but it makes a huge difference to how you actually take on things and how comfortable you feel learning.
> (GPStR Interview 11)

Interview data was corroborated by information in documents:

> Meticulous attention to detail made it all a very enjoyable experience (hardware in rooms, surgery mobiles, covering GPs for all surgeries, well stocked kitchen, clean toilets, visiting bags, admin and IT support)
> (GPStR Feedback 2009)

The *availability of support* was emphasised more with the vocational learners, presumably reflecting the fact they were doing a job at the same time as learning:

> The trainers talked us through how the practice works and… the kind of problems that come up and then after that is was a case of you know, everyone was very friendly in the corridors and if you had problems you could talk and after that it was kind of go and knock on peoples doors.
> (GPStR Interview 15)

> **GPStR** The informal bit is very important as well. I actually think that it is equally well done.
> **Interviewer** Is there anyway that informal part is encouraged in the practice or has it just happened because there are lots of people around?
> **GPStR** There certainly is a lot of people around, I think you can get hold of anybody and ask something that might bring up ideas or learning.
> (GPStR Interview 11)

This support was considered important not only for learning but also patient safety:

> If you have a problem while in training you can go out and wait for the partners or the senior GP's to finish and ask questions and they can resolve it there and then instead of that lapse in safety perhaps that might happen as opposed to in a hospital practice.
> (GPStR Interview 11)

The role of established partners in providing this support was noted and appreciated:

> All the partners pitching in when the chips are down made all the difference. I clearly remember that even on my worst on call day (when patients were booked in until 20.30hrs) I went home at 18.45 hrs thanks to all the partners pitching in. I do hope this tradition of teamwork is maintained.
> (GPStR Feedback 2009)

The *quality of support* was also emphasised by vocational learners, both in terms of clinical expertise and educational ability. This was one of many references to GPs having specialist skills:

> A lot of the partners in this practice have special interests and our trainers themselves so they sort of know from our level of experience where to pitch the information, how much responsibility and support we require
> (GPStR Interview 11)

One GP registrar was impressed and grateful for how a mistake was handled:

> The phrase they used to me was "you know, have a think about how… you know, what you could do to make sure this doesn't happen next time". Which is what I did really. I had a think about how to change my prescribing habits and… jotted them down and put them in my portfolio and that was it really. I think what was important for me was that there was support from the partner. I didn't feel like I was being chastised for it. You know, everyone makes mistakes so… it is what you learn from it and what you put in place to stop it happening again.
> (GPStR Interview 15)

Educational expertise and commitment was also appreciated:

> Being trained by an exceptionally competent, dedicated and supportive GP trainer. I am truly grateful for his invaluable support not only for all things VTS but his pastoral advice for a lot of other things which has made this placement fun, challenging and positively shaping for my career
> (GPStR Feedback 2009)

6.2.2 How learning occurs amongst GP Specialist Registrars

A range of codes covered the broad category *how learning occurs*. This area was more complex than for student learners. The codes reflect the difference in emphasis arising from learning within a vocational role and included: *learning from each other reflective learning* and *learning from patients* including *learning from mistakes*:

Learning from each other

Vocational learners, in contrast to the transient learners, placed far more emphasis on *learning from each other*. It was structured tutorials which gave the space for this learning:

> Sunnybank has kind of … sessions set aside for tutorials with… twice a week… no three times a week actually… with different GP's each time. One of them is my own trainer… the other two are with two of the other partners in the practice. Some of them… two of them are group teaching and one of them is a one to one.
> **Interviewer** With the other two registrars?
> **GPStR** With the other two registrars which works really well because it means you get to compare your level of knowledge with your peers and also… you know, you can teach them and they can teach you as well…
> (GPStR Interview 15)

> The other things that might trigger learning are the tutorial sessions or the presentations that you have to prepare for… you sit down and decide with your trainers what do we want to learn or what do we want to explore more about for example, on the flip chart we have the ethical dilemmas for the session and kind of reflecting on different aspects and different kinds of care, competence for example.
> .(GPStR Interview 11)

Learning from each other included the opportunity to learn from recently qualified peers:

> All the salaried GPs have been fantastic in giving advice, listening to whinges patiently and being a sound board as a qualified GP of a similar age group.
> (GPStR Feedback 2009)

Reflective learning

A key feature of GP training in recent years has been the encouragement of reflective practice (previously far more part of the nursing model of learning). Although never defined, reflection was a frequently mentioned aspect of learning. For registrars this was something that ranged from a natural process to one externally imposed (as part of the portfolio for GP professional membership), but equally one encouraged by the trainer. The quotes below illustrate these points:

> The majority of my learning is done in my own time, through having a patient that I have not been sure about how to manage… so I have gone away and read about it and used that to come back at my next appointment with them and plan the management
> (GPStR Interview 15)

> We are encouraged to sort of do reflective learning, reflective entries into our portfolios so… talking about a difficult patient consultation or an interesting patient that you have seen or

> something like that and… I think yes, it does make you think more about different aspects maybe of what you previously wouldn't have thought about maybe in hospital jobs.
> (GPStR Interview 13)

> We often do like random case analysis [with the GP trainer}, we just look at what I have been doing the previous week and that often triggers you know… to go away and look up something .. it makes you think more and reflect more about how you practice.
> (GPStR Interview 13)

Reflection on experience is a key component in professional learning and now across clinical learning. Whilst this is reflected very clearly from the GPStR interviews, it was noticeably less evident within medical student interviews (and as we shall see was discussed very differently within the nurse interviews). Perhaps this reinforces the need for experiences to be meaningful for reflective learning to occur, and perhaps meaning comes from both relevance *and* responsibility. These are areas I return to in the discussion.

Learning from patients

Learning from patients appears to be triggered from the mismatch between prior knowledge and skills, and the demands of patient interactions. This is perhaps magnified in a general practice setting by the sheer variety, complexity and uncertainty of cases seen.

> You don't want to appear stupid in front of a patient so if you know that you don't know something and you have identified it then I think you know, you are your own worst enemy not to go and look it up and find out a bit more.

> When you first start off you are seeing you know, people coming in with problems and a lot of the time it is like 'oh my gosh I haven't got the foggiest what is going on with you, I don't know about this' so just seeing the problems makes you think about identifying learning needs and where you need to sort of try and you know, improve on.
> (GPStR Interview 13)

Learning from patients, especially *learning from mistakes*, can be crucially shaped by the skilled intervention of a trainer:

> The one event that I have been involved in…one of the partners has told me about it and then I have had a sit down with them and talked about… what happened, how it happened and how to stop it happening again, what were the… repercussions, what could have been the repercussions?
> (GPStR Interview 13)

6.2.3 Recognition, relevance, respect and emotion

Emerging from medical student interviews and observation were four categories which I believe are components of the core theme of engagement. I will revisit these briefly from the GP registrar's perspective, to explore differences in emphasis.

Recognition

There was little mention during GP registrar interviews of them feeling welcomed or being involved. That certainly does not appear to be because they weren't welcomed (and indeed their written feedback acknowledged being "made welcome" and a "great atmosphere") but rather that it almost appeared a given from their vocational role.

With the GP registrars *recognition* was more profound, including having their own room (something not even all the partners had) and feeling *part of the team*:

> The logistical side helps a lot, having your own rooms whereas the GP partners might be moving around in different rooms, I think that does say something. It really makes you feel welcome, you have one set place, and one set room.
> (GPStR Interview 11)

All three GPStRs in their feedback mentioned having their own consulting room as being a significant positive feature of their placement. Equally it was clear from observation of their involvement within practice meetings and educational events that GP registrars were very much treated as part of the practice.

All GPStR feedback mentioned their appreciation of supportive, approachable GP colleagues in stimulating a positive learning environment, but specifically appreciated being listened to:

> One of the things I always found really encouraging was being listened to and being acknowledged. I noticed in meetings that the senior partners would always participate as team members listening very carefully to, and appreciating, even the most junior staff members'

> contributions. Their active participation in the learning activities has I believe been a key factor in creating an atmosphere of team work and learning in the practice.
> (GPStR Feedback 2009)

Relevance

The use of language when discussing clinical teaching in the practice was striking in its similarity to medical student interviews. This included the concept of *pitching it at the right level* to illustrate an essential but perhaps rare skill of the expert teacher:

> They sort of know from our level of experience where to pitch the information, how much responsibility and support we require and obviously I think the practice manager is one of the lynchpins in this whole learning process, she facilitates and it is great really, we have no problems from that aspect. I have found it perhaps, if not the best, one of the best practices that I have known or learnt about from a teaching point of view.
> (GPStR Interview 11)

Respect

Many aspects of the interviews suggested a high level of *respect* for the teaching quality and support on offer in the practice. This was an area of striking similarity with medical student findings, and also across the nurse learners:

> You know, there are definitely trainers, my trainer and the other trainers in the practice definitely sort of really into teaching and you know, encouraging learning and everything but… also the partners you know, they are quite sort of involved in stuff, whether it be medical students and you know, they give you extra information, extra help you know, it is easy to sort of go and knock on a door and ask them something.
> (GPStR Interview 13)

Whilst medical students were impressed by clinical subspecialties amongst staff, GP registrars had respect in general for the quality of the clinical learning environment. This respect appeared to strengthen the learning. It extended to a more general respect for the use of an *evidence based approach* to clinical care:

> One of the really sort of interesting parts I have found for this practice certainly is… the chronic disease management aspect. I am not sure if any other practices do that, the ones that I have been or involved in or heard of do not do… they follow just the NICE guidelines. [Here] there are in-house protocols, every… for example, every doctor, every partner and the registrars they take up one topic every six months go through the NICE guidelines, the SIGN guidelines, all the guidelines, the latest evidence and research, put them together as a form of a protocol so you are all doing the same sort of things.
> (GPStR Interview 11)

Emotion

I suggested that for transient learners clinical learning may require more than a learning environment with recognition, relevance and respect (important as those are). Perhaps learning is triggered through emotion: whether through *challenge*, being *out of a comfort zone*, or from *enthusiasm* and *excellence in teaching*. All these were codes arising from analysis. All had resonance with GP registrars:

> When I have spoken to people in other practices, the amount of teaching we get here sounds like a lot more and the frequency of which it actually happens and people are available and there is certainly a… the partners that are involved in the teaching… are very enthusiastic and… you know, rather than spoon feeding you… do try and make you think for yourself and not necessarily give you the information but tell you where you can find it which I find useful.
> (GPStR Interview 15)

Once again, entirely spontaneously and for me more surprisingly than in previous examples, the positive learning environment in Sunnybank was contrasted with negative experiences in hospital, this time relating to *challenge*:

> You are made to think for yourself, think around problems as opposed to you know, in a hospital you might just be told "oh this is this and this is that that is it you know", whereas here I think it is much more… "think for yourself, make your own decisions". That was important you know, being able to talk through the sort of different… you know, different things really. You feel more supported I think here than maybe you would do in the hospitals.
> (GPStR Interview 13)

These points all reflect similar strengths seen by the medical students. They suggest a very high level of satisfaction with the learning environment, but also something beyond that. They suggest *excellence in teaching.* My impression is that this triggers an emotional response from learners arising from appreciation for the efforts of the practice and the staff supporting learning. The response helps to motivate learning:

> All of the staff are aware that there are trainees in the practice so be that medical students or registrars so there has been a couple of times when you know, I have been in a surgery and I have had a knock on the door and it has been one of the partners or salaried [doctors] saying… 'I have got an interesting rash do you want to come and see it?' or 'I have got the patient you saw last week, who has got this problem now, do you want to see it?' So that is useful and it helps you follow up a problem that you know, from rashes which are so rare anyway… you get to see it.
> (GPStR Interview 15)

6.2.4 Engagement, being part of the team and belonging

Medical students appeared able to engage with the clinical learning environment even on a transient placement, and I suggested this arose from the recognition, relevance, respect and emotional interactions with the practice. The same process occurs with GP specialist registrars, but was taken further as registrars both engaged but also felt *part of the team* and a clear sense of *belonging* to the practice:

> You are kind of… invited along to all the teaching sessions that they have here, the half day teaching, social events and all of that sort of stuff so there is a bit… there is a sense of community and kind of… you are all lumped in doing the same thing so… that… and with that you inevitably develop a bit of camaraderie as well.
> GPStR Interview 15)

I went on to question whether that sense of belonging helped benefit learning:

> … it makes me more willing to go and talk to people about a problem… running a decision by someone who has got that expertise. So if I was thinking about doing a follow up with X, Y, Z… with a nurse you know, "does that sound appropriate?" You know, rather than maybe speaking to a doctor who probably might not be the best one to talk to about it. I can go and speak to the nurses because I know them and so that… inevitably I will learn better from that than I would have done if I had spoken to someone else, so I think it does.
> (GPStR Interview 15)

Part of *belonging* was the satisfaction of being able to contribute to the practice, the sense of "helping out" and "giving something back":

> You know, you help out in terms of clinics and stuff and when they start you on calls as well you definitely feel like you are… you are helping out with the rest of the team.
> (GPStR Interview 13)

GPStR As registrars because we are coming out of hospital jobs… sometimes if there is a mental health issue then if people know that I have just done psychiatry then there has been a couple of times when they have come and spoke to me. There has been one occasion where my trainer has asked me about issues to do with capacity and stuff because I have done it recently.

Interviewer Ok.

GPStR Which I think is good as well.

Interviewer Right.

GPStR Because it not only means that you… it makes you feel less guilty about kind of taking all the time… in a way you feel like you are giving something back because no-one can know everything

(GPStR Interview 15)

Certainly the GP StRs appeared from indirect and direct observation to be very much part of the practice, contributing to meetings and interacting freely with all members of the practice team (#Obs 3,6,8,9). This interaction was with nurses as much as doctors, something which corroborates the mutual support noted between these groups during the interviews.

6.2.5 Developing identity and trajectory

Compared to medical students the GPStRs, perhaps unsurprisingly, gave frequent references coded as *developing identity* or *trajectory*. They appeared very aware of their trajectory of professional learning. This appeared to be a motivator for learning:

> [Experienced GPs] talk from that experience and knowledge but sometimes it feels like it is a bit higher for my level. Changing it from a positive way, something to inspire you, because these guys are impressive and you think someday I would like to learn that thing or get to that level.
> (GPStR Interview 11)

> …just generally being here, being let loose so to speak, having your own surgeries and having your own patients that you have seen and follow up, it just gives more confidence and more… I suppose more of an identity as a GP.
> (GPStR Interview 13)

These findings appeared consistent across GP specialist registrars both early in their vocational training, and later on. This suggests that once they feel accepted in the practice and start on the trajectory of professional learning they engage with the process. Unlike medical students, GPStRs are motivated to learn through being part of a trajectory. Wenger's idea that learning occurs through "negotiating meaning" was perhaps represented by the importance placed by GPStRs on learning with and from peers, and the idea of "benchmarking" progress:

> Having support from other registrars, that is quite nice because you can all benchmark where you are at compared with everyone else and you sort of know if you are at the right level and you are having the same sort of experiences and that is quite nice compared to people that maybe are the only person at their practice.
> (GPStR Interview 13)

These findings suggest the presence of peers and of clinicians across a range of professional trajectory (from medical students to salaried GPs) may help this "benchmarking" of progress, and may in turn help with identity development.

6.2.6 Learning environment, being a teaching practice, communities of practice

Amongst vocational learners there was a very positive overall view of the learning environment, both the level of organization, commitment and the general ethos:

Interviewer	And generally about the learning…what… any sort of overall impressions of…
GPStR	Learning here is absolutely fantastic.
Interviewer	Right.
GPStR	Because there is loads of learning opportunities and you know … it is very much timetabled into your weekly routine in terms of extra tutorials, you know sort of seminars for the registrars that we have together. There is extra things in terms of the training for GP's. We go up to the… to the hospital and we have day release and things, but then you get more opportunities you know, there is always feedback with your trainer so you get to sort of pick up on any problem cases. The general ethos is that people want to pass on some of their experience and help you know, the up and coming sort of doctors. (GPStR Interview 13)

I will later explore these concepts in detail across clinical learners (section 6.6, p. 145).

6.2.7 Summary of ideas from GP Specialist Registrars

GP specialist registrars had a very similar outlook on the learning environment to the medical students:

- Sunnybank provides a well organised, committed, supportive learning environment.
- The administrative and management support for learning was recognised and appreciated.
- All clinicians are approachable and available.

As with medical students a key part of the learning environment were elements contributing to a sense of engagement with the practice; a clear respect for the practice team and its GPs; a sense of being respected and valued; a sense that learning was pitched at the right level and relevant; a sense of emotional involvement arising from both challenge and through role modelling and inspiration.

GP registrars found the motivation to learn from patient encounters, peers and tutors. Motivation was also provided from clinical responsibility with patients, from a sense of involvement and belonging in the practice team, and from being on a recognised trajectory of professional learning. All these were obvious, if unsurprising, differences to student responses. Learning from peers may be important both to benchmark clinical progress, but also to help develop professional identity.

6.2.8 What about other clinicians involved with vocational learning?

Two of the seven nurses interviewed in this study are vocational learners within the practice, one training to be a practice nurse and one a nurse practitioner. Equally the health care assistant could be considered a vocational learner, though on a trajectory of learning from an administrative background to developing clinical skills in house rather than part of formal professional training.

Whilst I have chosen to lay out these findings in uni-professional sections, both for reasons of clarity and anonymity, there are some points to highlight where themes cut horizontally across professional backgrounds.

The main points in common across vocational learners are:

- The general recognition of the presence (and importance) of both personal support (from trainer or tutor) and practice support (both administrative and clinical).
- A sense of being valued and respected as learners and clinicians.

- A sense of belonging to the practice and being part of the team (even when in the practice for very small periods of time). This is different to transient learners, and I think reflects the vocational, and hence contributory, nature of the relationship with the practice. It may also reflect the sense of being on a trajectory of professional learning, something present across vocational learners.

The main differences between vocational learners in medicine and nursing involved:

- The tensions in supervision arrangements across professional boundaries (present in nurse learners where they had medical supervisors but nurse learning groups).
- The lack of clarity regarding professional trajectory in nursing (perhaps reflecting less mature career structures and a lack of same profession role models).

My evidence for the points raised will be presented in the section on nurse learners.

6.3 Embedded learners: GP experiences on clinical learning

This section presents the findings relating to established GPs in the practice, including a purposeful sample of GP educators. Alongside the trajectory of a professional career there is also a trajectory within clinical learning, from a start point which is mainly learning to an end point which for GP educators involves much teaching but also personal learning. This dynamic interaction between learning and teaching is highlighted.

These findings here are presented slightly differently. All interviewed here were involved with teaching as much as with personal learning. All were partners in the practice, so have some responsibility and role in building the culture of learning observed elsewhere. I have dwelt a little on ideas linking with personal learning seen amongst transient and vocational learners, but concentrate more on practice learning, practice teaching and motivation to teach (areas where the embedded GPs have a very different perspective from transient and vocational learners).

Four GPs were interviewed. It was considered important to capture the views of both postgraduate and undergraduate tutors as well as a GP less directly involved with teaching. The interview findings are supported by information from indirect and direct observation and documentary evidence.

I am concerned that the evidence from embedded learners might be skewed towards the enthusiasts and educationalists. Is the passion for education suggested below representative of all GPs? Are the six salaried and locum GPs engaged with education and part of this culture? My evidence is strengthened by:

- The consistency of views expressed amongst GPs and other clinicians. This includes concordance on many aspects of learning culture from the GP less directly involved with education.

- The findings from interviews being consistent with observation across a wide variety of GPs attending education meetings, including salaried GPs and those less involved with education.

    - Participant validation: emerging findings were related back to the practice at an educational meetings in July 2009 and November 2009 and were felt to be consistent with views across the practice.

6.3.1 Personal learning

GPs were asked about their personal learning, clinical learning in the practice and their involvement with teaching. Personal learning formed a category arising within these embedded learners from a variety of coded ideas, the most important ones being: *motivation to learn; expectations; professional development; learning from patients; learning from each other; external triggers for learning; learning from teaching; reflective learning.* These interviews revealed a strong commitment for personal learning. It is clear that any passion for promoting learning and teaching across the practice is very much held at a personal level by GPs and GP educators:

Motivation to learn, expectations, professional development:

Interviewer Do you feel your expectations or your intentions to… if you like in your professional development here have been fulfilled?
GP They should never be fulfilled should they?
(GP Interview 28)

My learning needs, my expectations and outcomes have been met and continue to be met on a day to day basis here and I hope that continues to happen as I sort of progress through my career really. I suppose only time will time will tell but yes I definitely feel at the moment as though any expectations that I did have, although it is difficult to identify what they are now in retrospect but they definitely fulfil that. I don't think that I would still be here if they weren't because it is such an important part of my personality and my sort of professional being is to ensure that I keep up-to-date and continue to enjoy general practice.
(GP Interview 5)

Learning from patients:

As with transient and vocational learners patient encounters appear to provide the most profound stimulus for learning:

There are lots of different ways that I learn from patients you know, I learn something everyday. I usually learn something in every consultation, I think I mean you learn from your experiences both positive and negative I think and as I have I have already alluded to I don't know whether it is my personality but I think I probably learn more from the negative experiences than I do the positive ones.
(GP Interview 5)

For me it was a real eye opener consultation in terms of what I didn't really know about this man… what his expectations and all of the rest of it and the student again was absolutely fascinated by the whole consultation process. He was like we learnt a lot about that guy as a patient didn't we? So they still surprise me patients. I am still… I am surprised what they come up with.
(GP Interview 28)

Learning from each other:

Personal learning is also triggered through conversations with peers, and from the pressure of working with excellent colleagues. Note the humility and respect for colleagues, something that helps explain the perceptions of transient and vocational clinical learners:

Firstly you want to try and keep up to date because we do need to make sure that we are giving good care to the patients but also because we have got an excellent team and lots of good medicine going on you need to be keeping up to speed with all of the things that are happening.
(GP Interview 6)

> I learn from feedback from consultants or colleagues within the practice. We all feel that we can approach each other if something has come up that potentially could have been done in a different way or could have been done better.
> (GP Interview 5)

This humility and respect was much evident during the protected learning time meetings (#Obs 3,6,8,9). These multidisciplinary meetings appeared to the observer very balanced in terms of cross professional participation, and noted for input from across the practice team and a marked respect for the opinions of others.

External triggers for learning are one motivator, not surprising as GPs need to justify their learning during annual appraisals (organised by the PCT), and will soon need more evidence of learning to fulfil the needs of professional revalidation:

> You have to sort of keep up-to-date, demands are changing from both patients and outside influences, and PCT's in the NHS in general I think. So I feel very comfortable knowing that I work hard on my bit of professional development but also the practice is supporting me.
> (GP Interview 5)

> **Interviewer** The new system there that you were talking about where you are formalizing the formal meetings, when did that start then?
> **GP** Earlier this year and really it was driven by the fact that we know from the appraisal point of view… in its beefed up form from the revalidation process ……that evidence is going to be crucial and we needed to find a way of recording what we felt was the most useful learning that we did.
> (GP Interview 6)

A concept prominent within the embedded learner data was that of *learning from teaching*. Learning was triggered both from interactions with learners and through preparation for teaching sessions:

> There are things that occur obviously in terms of teaching with your learners stimulating you and stretching you, asking those awkward questions that you always thought you knew the answer to until you had to answer, that help you maintain your professional development.

> There are lots of times when I am preparing for tutorials or preparing to run the education sessions, that you [discover] areas that you did not know existed and that is actually very useful and I have actually learned a lot from my preparatory work.
> (GP Interview 4)

Clinical learners not only ask questions and challenge assumptions, but they can offer new perspectives which may stimulate *reflective learning*:

> A learning event for me as well… … not… in terms of how do I teach but in terms of the clinical scenario that we were involved in because we were looking at from a different perspective, it may throw up a whole new… ideas that what would usually come to the floor in a consultation. They get in the way sometimes students in the consultations… sometimes they talk….. wonderful opportunities and maybe for the patients as well.
> (GP Interview 28)

The same GP educator reflected fondly on a previous time when he had unstructured personal tutorials with GP registrars:

> That was a really useful time for me… brilliant for me… I sometimes wondered who got more out of it, me or the registrars because it was useful as a reflective, unburdening time…
> (GP Interview 28)

6.3.2 Learning as a practice: formal learning, personal and practice development

Formal education in the practice mainly revolves around a regular protected time for learning on Wednesday afternoons, to which GPs, GP registrars and nurse practitioners are invited, and at times the nursing and administrative team. The main priority for the meeting concerns personal and practice development:

> We have structured learning and what we do in our practice is we identify our own learning needs and once a year we pool them and then design… we have a weekly education slot for the nurse practitioners, the salaried docs, and the GP partners. It is run by us but the actual topics are decided based on our learning needs,
> (GP Interview 4)

> Something in-house is much more…flexible and therefore questions can be asked and we will actually get some answers to the issues that we are stuck with. So that is the sort of main formal thing
> (GP Interview 6)

The sessions are highly organised, focused around identified learning needs, and minutes are taken to provide evidence of learning to meet the requirements of GP appraisal and revalidation:

> We have been better… organised and we have got… one of us directs it now and says you know, you are going to do that, you are going to report back on that, that has been an interesting topic today who is going to feedback next time… so the learning has become far more focused and coherent and organised and I think that has been a good thing for us.
> (GP Interview 28)

> We have only recently started the system that you saw because previously we did not have any written record of the content of the meeting. …so that you have got evidence that you were at that meeting and learning took place but also on that is a distillation of the comments that were put on the feedback form so that you will actually have a recollection of the content of the meeting and some of the learning points that came out of it.
> (GP Interview 6)

These findings were supported by direct observation (Obs #3,6,8,9). There was a clear agenda, structure and facilitation. Minutes were available afterwards which appeared to accurately reflect consensus from within the meetings.

The formal meetings appear strongly focused on established GPs professional development needs. The GP specialist registrars considered them at times too "high powered", and the nursing team sometimes felt excluded or marginalised (though these interview findings were not corroborated from direct observation). The GPs interviewed saw the education sessions as a centre piece of learning and teamwork. Who the "team" is in this context varies with different perspectives (something I shall return to in the nurse section):

> Our group education sessions are really quite pivotal in terms of personal and professional development. I mean one of the functions of our education sessions is that there is that opportunity for team working. It helps maintain your enthusiasm, it stimulates you, it is interesting and it is these things that actually help and encourage you to maintain life long professional development. I think that is so important to have that environment
> (GP Interview 28)

The following two quotes illustrate doctors' belief in and desire for *equality* in the practice, of being *part of a team*, and for l*earning from each other*:

> There is no sort of, it has got to be top down and it has got to be one of the doctors that do the teaching because we know best, we certainly do not know best in many of the areas because that is not our remit. Recognition of skills is an essential part of a good team and using the appropriate person for the job is essential to success.
> (GP Interview 6)

> Across the board, it is the nurse practitioners, it is the practice nurses, the GP's …you know we are all equal. We are all managing the type of conditions and therefore we tend to identify where our needs lie and share it out, agree what we are going to do, bring it back having done it, share our experiences and alter our protocols and guidelines for it.
> (GP Interview 4)

This concept of equality was supported through interactions observed within meetings (#Obs 3,6,8,9) where equal participation was evident, and an explicit effort was made by the facilitator to seek views across the practice.

Even the GPs with their stated belief on *equality* acknowledged tensions do occur:

> I have to say there have been times in the past where you might have said you are not being supportive there… with our staff… you know, particularly nursing staff when they wanted to… they just want to learn more and more and more and we were saying yes… but you have got a job to do, lets get on with the job… yes learning is important but it has got to be… you have got to be focused on that job and the learning has got to be appropriate
> (GP Interview 28)

6.3.3 Informal learning: learning in the corridor (or, not!)

Much as the formal learning was seen as important, certainly by the GPs, an impression was given that this was more a symbol of the culture of learning and of teamwork in the practice and not the main place where learning occurred. There were far more references amongst GPs to opportunities for informal learning (something also noted for GPStRs and to a lesser extent medical students). *Informal learning* mainly involved *learning in the corridor*, *learning from each other* and *learning from technology*. The key to informal learning appeared to be *availability of support*, *respect* for colleagues, and *trust*.

> There is an atmosphere of help and that is also the atmosphere that means I don't mind going and asking somebody if I am stuck with something and it sort of all somehow snowballs from the fact that we all get on with each other, we are all quite happy to help out with each other.
> (GP Interview 6)

> A lot of information is exchanged in the corridor! You know, particularly as we have got GP leads, we have got some specialisation within the practice. When we do come to the limits of our competence to knock a door and say 'Andy, I have got this lady with ENT problem', or Marianne…
> (GP Interview 4)

Availability of support was considered crucial for learning to occur. It is helped by the structure of the building (the *learning architecture*):

> The actual structure of the building makes a difference. The fact that we are just a big box and there is a big central admin area where everybody has cups of tea is really useful as nobody is too far away and you are bumping into people in the corridor all the time and if not it is around

> the coffee pot, which is where a lot of discussions take place and ideas. Just batting patients to one another you know, what to do and where to send them.
> (GP Interview 4)

One GP disagreed that the corridor was the best place for informal learning to occur:

> If there is something interesting that happens, we will very often talk to each other about it ...in each others rooms but always aware of the fact that we do not stand talking in the corridors because in this place the sound travels beautifully back into the waiting rooms so you do need to be careful what you say.
> (GP Interview 6)

6.3.4 Engagement, identity, belonging, trajectory: the GP perspective

The fact GPs are the partners and owners of the business suggest concepts such as recognition and engagement may be more self evident. GPs are part of the team, they do belong. This is not perhaps always how they perceive the situation:

> I said before about being potentially isolated… … I sometimes feel… because I have got two consultations going on at the same time… there is the one I am doing and then there is the one that my nurse… who is doing the same sort of things at the same time, I feel that I am part of that… sort of… that feels like a team. I am far more… interactive now than I ever was so yes I do… feel part of a team.
> (GP Interview 28)

Lave and Wenger suggest that learning arises from belonging, and trajectory. This has been explored amongst transient and vocational learners, is there any further insight from the GP interviews? It might be expected that as embedded learners there is little sense of trajectory.

One area where trajectory helped with personal learning related to previous experience as a GP registrar:

> The person who was my trainer when I was here is a great resource for me, I still feel that I can approach that person, especially if I have got clinical things but often actually the clinical problems are not the areas I need the most help with. It is sort of ethical or social dilemmas and he is incredibly supportive with that and I am grateful for that
> (GP Interview 5)

This may be viewed as an unusual case, though in fact five Sunnybank GPs (out of 16 in total) were previously GP registrars in the practice. The sense of continuity and renewal may be important in their personal learning (and their role in teaching).

Where trajectory and learning come together most strongly was through personal motivation to be a GP, perhaps a motivator for a role in education, and from the personal satisfaction derived from helping others to develop within their career:

> I was an undergraduate at Leeds and in those days you spent… a few days with a local practice and in my case it was … the Meanwood University campus as it was then and… a two week stint with a distant GP … that was revelatory for me… I wanted to be a GP after I had done that.
> (GP Interview 28)

> A group will turn up and you think, this lot are going to be fantastic when they are doctors and it is a pleasure to be able say that you have been part of the information transference if you like.
> (GP Interview 6)

Finally, the potential benefit to the profession and practice in terms of future recruitment was not forgotten:

> The other thing, like I say if we can keep our current learners and students sort of enthusiastic and motivated particularly in the area of general practice, then again these will be our future colleagues. That has got added benefits for the practice in that you know, for future recruitment and keeping things going if you like.
> (GP Interview 5)

One point that interests me from these findings is the way the GPs return to their identity as medics when discussing motivation to teach. There is no discussion of career trajectory for other professionals (despite the fact the same GPs mentor vocational nurse learners, and embraced teamwork and equality in other parts of the interviews). This point will be revisited in the next section on nursing.

6.3.5 Motivation to teach: personal and practice benefits

Motivation to teach comes mainly from the personal benefits described by all the GPs interviewed. There is a clear emotional load of the language used in these passages, phrases such as *forge relationships and friendships, a real high and a real buzz, wow moments, bouncing around the place*. Some of these became in vivo codes (e.g. *wow moments*) others were coded as *motivation to teach* or *a passion for teaching.* They reveal an expectation of both immediate and lasting satisfaction from teaching:

> The other partners and our salaried [doctors], enjoy having them around just because they bring that enthusiasm, they make you feel valued because they see you as a resource, which you are. Sometimes professionally it is nice to be asked and considered an opinion and feel valued.
> (GP Interview 4)

> It brings me into contact with new, dynamic people who have new ideas and … probably most of them are more up-to-date than myself. It brings me into contact with future colleagues as well, so it helps to forge relationships and friendships. I really get an awful lot of satisfaction from sort of, from teaching as well when somebody is enthusiastic and I feel that they sort really grasp something I get an awful lot of benefit… you know I feel a real sort of high and a real buzz from that.
> (GP Interview 5)

> One of the things I really do like is the wow moments if you like, when particularly with the early skills training somebody gets to hear a heart murmur for example and you can see that realisation that appear on their faces that they have actually done and heard and will then carry on to know what the heart murmur is for the rest of their careers
> (GP Interview 6)

The second motivation to teach comes from *keeping up to date:* the perceived benefits to personal skills as a GP, and in turn for patient benefits in terms of GP availability, skills and future provision:

> It helps the organisation as a business you know, we have got young GP's who are training. They help with the home visits, they help mopping up patient demand.
> (GP Interview 4)

> Keeping up-to-date, my enthusiasm, you know I do a variety of things in my working week, which helps me sort of stay motivated and enthusiastic for general practice. It certainly improves outcomes for patients, not just because I am up-to-date … I have had sort of education in communication and consultation skills and things like that, so dealing with patients hopefully I am seen as a sort of area of expertise in that if you like.
> (GP Interview 5)

Whilst teaching must undoubtedly help with *keeping up to date* it was very clear from educational meetings that it wasn't the only driver. Clinical meetings were very geared to a consideration of recent guidelines, evidence and best practice (Obs #3,6).

Finally I offer quotes that suggest an involvement with teaching helps maintains enthusiasm and provides a welcome relief from what can be an otherwise monotonous job. It is perhaps ironic that one strong motivator to teach is the desire to gain *variety* from the very profession you are promoting:

> It [teaching] gives a nice variety to the working week and one of the reasons that we have some or all of these different activities going on is that five days a week of sitting seeing patients is not the nicest of jobs and to have the variety to say well I am going to do patients today that is nice, or I am not doing patients today I am teaching students this morning and that can be very enjoyable as just a different role.
> (GP Interview 6)

> If you are just stuck seeing patient after patient… it can be soul destroying… so it adds another dimension to general practice. Rewards… the undergraduate work pays really well… the postgraduate work I do… I was teaching with the diabetes diploma the other weekend and… I was like oh its Saturday I didn't really want to go, I wanted to stay in bed, I had lots to do at home… but when I got home my wife said look at you… you are bouncing around the place… you have been teaching again haven't you… I said yes… I had a really good group today. So I… can get a lot out of it on a personal basis as well…
> (GP Interview 28)

6.3.6 Summary of findings from embedded GP learners

What are the similarities, or differences, between GPs learners and our transient or vocational medical learners? Most striking are the similarities with regard to personal learning, and the clinical learning environment:

- GP learners value the support, approachability and availability of clinical colleagues just as much as less experienced learners.

- They appreciate the excellent clinical environment (as did other learners).

- There was a clear sense of respect for colleagues, both medical and from other professions.

- This sense of respect extended to clinical learners including medical students. It appears to arise from recognition about how valuable medical students, GP registrars and other clinical learners are to the practice, and also how personally valuable the GPs found their involvement with teaching.

There were three main areas of difference from earlier interview findings:

- GP learners used both formal and informal learning techniques, and were motivated both through patient encounters, external drivers, and peer pressures but very importantly through their involvement with teaching.

- There was little evidence of motivation to learn coming from a sense of belonging but this may have been felt self evident and not expressed.

- Neither did motivation to learn appear to arise from professional development or identity, excepting from external pressures such as appraisal and revalidation. However the sense of professional trajectory strongly influenced the desire and motivation to teach.

6.4 Learning perspectives from the nursing team

Seven interviews were completed with members of the "nursing team" across a wide range of backgrounds and experiences. This was a conscious decision to ensure a wide range of opinions was sought and to explore what common ideas emerged regarding clinical learning in this setting. Interview findings are strengthened through direct observation of nurses at educational events and meetings, and documentary evidence (e.g. reports on professional progress whilst in training).

Nurse experience ranged from someone training to be a health care assistant (and so not qualified as a nurse but now involved with some clinical work and learning) through practice nurses in training, experienced practice nurses, to nurse practitioners both in training and in established roles. One member of the extended nursing team was interviewed to give a perspective from clinical staff attached to the practice.

During the nurse interviews some individuals were concerned about their personal opinions being revealed to other clinicians in any identifiable form. These usually reflected their discussion of tensions regarding learning or teamwork. I have respected these concerns and ensured any contentious points are not identifiable.

This at times reduces the amount of insight or analysis I can offer (as any attempt to link comments to trajectory of learning may reveal an interviewee's identity.)

6.4.1 General points regarding nurse learning

Whilst it is hard to generalise across seven very individual clinicians, some points can be made which separate these interviewees from those with a medical background.

- Nurse clinicians have had an exclusively secondary care based undergraduate training, even the recent graduates. This contrasts to the medical students and trained doctors who have at least some primary care input into training.

- Nurse clinicians tended to emphasise the formal learning sessions as the key to learning (despite their perceived deficiencies), and tended to be even more appreciative than medical learners about the quality of training on offer (contrasting it both with hospital experiences but more commonly with the negative experiences their colleagues were having at other "teaching" practices).

- The nurse clinicians in general spoke far more about structured opportunities for reflection, and linked this discussion to the availability and importance of "their" mentor. They spoke less about opportunistic learning from patient experiences (again, in contrast on both issues to the medical learners at all levels).

- Nurse clinicians identified most strongly with their own professional team, as well as with the wider practice team. Some held this distinction more strongly with others, and some suggested a clear divide and tension especially where it came to the organisation and delivery of clinical learning in the practice.

- Nurse clinicians identified strongly with initiatives to support patient education and empowerment. Whilst there was common ground and overlap with medical clinicians, this was a clear difference in emphasis.

- Nurses often mentioned professional development and career trajectory but had a less clear sense of this being linked to education in the practice, probably as nurses tend to have medical as well as nursing supervisors (in contrast to medical learners who received education mainly from their own professional colleagues).

I provide examples to illustrate these divergent findings, but also to re-emphasise common ground across all learners (e.g. the common agreement regarding the support and teaching quality on offer across the practice). Interview findings are supported through observation, though in most cases not through documentary evidence as little feedback data for nurses was available. I have laid out the findings from nurses along the same trajectory as other learners: feeling welcomed, supported, respected, engaged, part of the team and belonging to the practice.

6.4.2 Support for learning

One overwhelming finding across nurse clinicians was of the *availability of support* within Sunnybank, the *approachability* of staff and the *culture of learning* which includes *highly organised teaching*, *time for learning*, and *structured learning* (all codes arising from data analysis).

> General… general, not just with the mentor but with the nursing team… and with the GP's and sometimes I have had to go to them and sort of ask them if they are wanting a specific blood test and I haven't been able to find it out from another nurse, I have gone to ask the GP and they have been very supportive towards me.
> (Interview 22 Nurse)

> …….if I ever needed any support I would either go to one of my [nurse] colleagues first… and then you would go like nurses and then obviously GP's as well but as I say the [GP] registrars are really… supportive as well.
> (Interview 14 Nurse)

Whilst this support was identified most strongly amongst their professional colleagues the distinction was not strongly made. Some nurses felt their GP mentors were their key relationships in the practice.

> **Nurse** …that is how I learn. I am very much a practical person rather than a theory person, I know the theory has got to come with it and you have got to look

at things and find out how it has been researched and where it has all come from but I do prefer to just get in there.

Interviewer And are you getting enough opportunities for that then?

Nurse Oh definitely, most definitely… ..[GP] is a fantastic mentor and he is happy in my work and… and I will ask him questions and say is that alright or did I do alright there… if I don't know something then I will go and see him and run it by him.

(Interview 24 Nurse)

When pushed it became clear that within a generally supportive atmosphere certain clinicians were harder to approach:

Interviewer … when we are talking about the team do you mean everyone?

Nurse Everybody. The GP's, the healthcare assistants, and the manager, everybody… everybody has been extremely supportive, very, very approachable; I don't feel that I can sort of like if I am stuck with something or if I have doubts about doing something with one of the patients or whatever, there is nobody that I can't go to and approach and say "I am really stuck here and I need your advice", there is always someone that I can ring or knock on the door and approach and…but there are a couple of GP's that I wouldn't approach.

(Interview 12 Nurse)

… if he [GP mentor] is away then I will go and knock on someone's door and it depends how… I know some of the doctors from working at Bradford and here so it depends… what mood they are in that particular day whether I go and knock on their door!

(Interview 24 Nurse)

Most nurses spontaneously reflected on how lucky they were to be at Sunnybank. The supportive environment was in pleasant contrast to prior experiences of learning, and that of colleagues at other practices:

……..the only major difference really is we have protected time so we know we have got specific time when we can do this learning whereas in hospitals it is like 'whenever you have got a minute' which you generally don't have!

(Interview 3 Nurse)

……..for a hospital setting it is …'if we are not so busy then you can get off to go and do teaching' or 'do the learning' whichever way you want to look at it but from a primary care setting it is time set aside and it is allocated to you. I find primary care setting teaching is a lot more stringent and 'you are going to it'… which is better rather than 'hopefully you will get to go to it' from an A and E point of view. So for primary care it is… the teaching side of it is very, very good.

(Interview 24 Nurse)

Sunnybank was not typical of all GP practices in supporting nurse learning:

I have got a couple of friends who are in other practices and they feel that they are not… part of a team … they have had like a couple of weeks and that is it right you are on your own now sort of thing, I am like thank god I have come to this practice.
(Interview 12 Nurse)

Nurse I am very supported… I don't feel like I have ever… not been supported at all, if I have got a problem I will be able to go to somebody definitely.
Interviewer Right, is that true of your other colleagues on the course?
Nurse No, no… they have had some bad experiences… really bad experiences, their mentors have not helped them, in fact one other person …on the course she had to change mentors because her mentor had said they didn't want to do it anymore… so she had a bad time. I… from my experience here I have been very lucky compared to some.
(Interview 24 Nurse)

6.4.3 Formal education, informal education, learning from each other

For nurse clinicians' formal protected learning time was provided on Wednesdays, with a mixture of nurse led tutorials and some whole practice meetings to which nurses were invited. The formal teaching sessions were in general highly valued, particularly the opportunity to *learn from each other*:

the first Wednesday of every month we shut and obviously the nurses normally pick out something that they want us to learn, whether it is to do with… obviously we do like… chronic disease management and things like that but basically they make it fun for us and you know, enjoyable
(Interview 14 Nurse)

…practice nurse meetings as well, once a month . A bit of that is learning as well. We leave a section for us to look at something that we are not sure about and the nurse practitioners will run through it with the healthcare assistants and the practice nurses …so that is good.
(Interview 12 Nurse)

These findings were corroborated by observed nurse meetings (#Obs 5,7) and by the nursing presence at the whole practice protected learning time (# Obs 3, 6, 8, 9). The nurse meetings were informal and cordial but highly organised with an agenda, clear facilitation and minutes. Like the whole practice meetings (though perhaps not to the same degree) they were based around a discussion of best practice and evidence with frequent reference to guidelines and opportunities for peer learning (# Obs5,7).

Some nurses suggested they value formal learning opportunities in the practice ahead of informal learning from colleagues, as they suggest these offer *evidence based teaching:*

Nurse If you have a formal teaching session or … you go on a course, you have got the theory and it is the using of evidenced based practice … you are getting the up to date knowledge. Where as if you ask somebody in practice… they might not always have the most up to date knowledge, they might not have done something for six or twelve months
Interviewer Ok, so you need both things in a sense?
Nurse Yes but mainly… I think the teaching and the training is more… is more essential.
(Interview 22 Nurse)

This suggestion links with a more general point that nurses appeared to emphasise the importance of evidence based practice more than their medical colleagues (certainly amongst vocational or embedded learners where medical learners appeared to value patient centred and experiential learning more highly).

The same nurse learner was clearly impressed by the approach of her (nurse) educator:

> She explained what was going to happen and .. carried out the skill with us observing and then we had the opportunity to practice the skill as well with her supporting where needed and that was backed up by information that had all of the evidenced based, following the NICE guidelines and the British Hypertension Society … that was one formal teaching session.
> (Interview 22 Nurse)

Most nurses however also emphasised the importance of *informal learning*, or *learning from doing*.

> You are learning all the time aren't you really…… we do formal education sessions, particularly Wednesday lunchtime which are useful although sometimes I think, although they are very good they are not perhaps as good as some other ways of learning which are probably less formal.
> (Interview 10 Nurse)

> It [learning] is hands on because… I know there are meetings, a lot of meetings do go on, tutorials do go on…… but from my own personal point of view it is very much practical. I think that it is very much for me to be within my clinic environment rather than coming to a specific tutorial.
> (Interview 24 Nurse)

One nurse suggested the link between taking responsibility and learning:

> Forty percent of it would be like formal learning sort of thing and I think the rest of it is informal learning as well. ……sometimes it is like driving a car when you are with an instructor, you are learning but it is not until you are actually driving the car yourself that you start learning, when you are out on the road.
> (Interview 12 Nurse)

6.4.4 Reflective learning

All clinical learners accepted the value of reflection, but to the nurse learners this appeared to be a formal structured process essential to clinical learning. By contrast medical students had been somewhat dismissive about its importance, vocational medical learners committed to it via their externally imposed portfolio, and established doctors accepted it as something that happened all the time.

Nurse educators emphasise the importance of a mentor or supervisor in reflection, and suggest the discussion is often about things that go wrong:

> I tend to meet up with my mentor, one of the nurse practitioners and I tend to, we tend to reflect on stuff like that for example if there has been an incident then we tend to sort of look at it and she asks me if I am alright with what has happened and……
> (Interview 12 Nurse)

> You do learn from patients obviously and learning I think it is from reflection from your own practice. We do have…clinical supervision so we reflect on specific things that have happened that we have not been happy with and have learnt from that.
> (Interview 3 Nurse)

> We have talked about it afterwards, reflection… how it can be improved and I think just communication with the patient as well, let them know what is happening…apologising if things sometimes don't go according to plan.
> (Interview 22 Nurse)

Nurse clinicians particularly valued the time provided by the practice to allow this:

> We were given a reflective learning cycle and I have … … written a reflective cycle about my experiences and then I have talked it through with my mentor. I have a weekly discussion… we have an hour set aside and the practice give me an hour to do like a tutorial so we discuss things then.
> (Interview 22 Nurse)

In contrast to medical clinicians, nurses felt the practice encouraged reflection:

> From a nursing point of view, reflection has always been part of how you learn. I think from a practice point of view it is perhaps encouraged … I do meet with [my mentor] to discuss anything that… not just things that I might be concerned about ..or any queries but things that have gone well or whatever, as well. We do it more formally, we do referral reviews at the education session so we actually have a look at the patients then and everybody says if they would have done the same or what they would have done differently, random case analysis and problem case analysis as well …..I suppose from that point of view it is encouraged.
> (Interview 10 Nurse)

Peer support for reflective learning was also recognised, but equally the dangers were revealed:

> We try to do [reflective learning] once a month. At the moment it is within a group ….but we are looking to do it individualised because we know that people are not obviously saying everything that they would like to within a group but it is really beneficial definitely.
> (Interview 3 Nurse)

Nurse clinicians appeared to place much less emphasis than medical learners on opportunistic learning, *learning on the hoof* or informal learning stimulated from patient encounters. In almost all cases where nurses described learning from patients or from clinical scenarios the importance of formal feedback or discussion with peers, supervisors or mentors was considered a key part of learning.

Obviously this work is interpretive not quantitative and I wish to make no claim beyond raising the possibility of a difference in emphasis. If such a difference is real it might reflect a difference in education and training, a difference in assessment, or perhaps the "medical culture" in the practice where in terms of numbers at least clinical learners and established clinicians are overwhelmingly medical. This may limit the availability of informal support and learning opportunities for non medical clinicians. That in turn may explain why formal peer learning was highly valued.

One quote explores this possibility:

> In primary care you are very much on your own… the autonomy is more pronounced I would say in primary care. Within a hospital environment you have got a very big safety net in that you have always got somebody around you… here in primary care … sometimes you might not see somebody until you go to the toilet or going for a cup of tea… if you are in your room you are in your room… you don't have to come out, you don't have to see anybody if you don't want.

and, crucially,……

> You have got to be a certain person to go and knock on somebody's door.
> (Interview 24 Nurse)

Does this finding matter? It serves to remind educators and clinicians that professional differences may occur in learning styles and these may cause tensions or indeed inhibit learning opportunities if not recognised and respected. As practices

move to develop learning and teaching for nurse learners they need to accept that the models that work for medical learning may not be appropriate for everyone.

6.4.5 Tensions in learning: learning styles and teaching styles

The general findings across all nurses are accurately reflected in the preceding paragraphs and indicate a high level of satisfaction for clinical learning, and respect for professional colleagues. A clear minority opinion however suggested the formal learning was too rigid and didactic, sometimes inhibited learning, and sometimes failed to recognise the learning requirements of all clinicians. These comments are not labelled to ensure anonymity, but come verbatim from nurse clinicians:

> There is positive and negative to the [formal] learning that I have experienced and I think it generally depends on who is, who is teaching it and their teaching style to be honest compared to my learning style. Do you know what I mean?

> Everybody has got a different learning style, we have established this and you know the facilitator … has got their very specific way they teach and it does not always suit the whole of the group.

> You tend to learn quite a bit from [the formal learning sessions] but… you know, you are not allowed to discuss things perhaps as much as you would like because you are being kept to the agenda so you know, sometimes in the meetings a couple of people break off and have a little chat and sometimes that can be quite useful, well I think it can but sometimes we are not really allowed to do that, we have got to… stop talking and keep to the point and I find that a bit frustrating sometimes …..

It may be these tensions reflect a different tradition of learning across professional groups, or the tension within traditional general practice that arises from employer/employee relationships:

> Sometimes I do think especially in the formal training it can be a bit… a bit very medically driven and a bit… intimidating is a bit strong but…..

Equally they perhaps reflect a lack of confidence about personal learning which could be acknowledged and addressed:

> Nurses are kind of in a minority at these meetings and you can feel a bit aware of… asking a daft question and I do not ever feel that when I am with my clinical educator. I feel I can ask him anything…….

Other nurses however did not feel intimidated, and most did not have any comments other than to emphasise the excellence of the teaching opportunities, including formal learning:

> It is quite an open forum you know, you don't feel intimidated, you can participate in the questioning, they give you feedback and things and they also do an evaluation at the end

The impression from the observation of whole practice meetings was that nurses did contribute within the discussions, although it was clear they often stuck together in a uni-professional group (adding strength to the ideas of teams within clinical teams) (# Obs3,6,8,9). The sense of being a separate team is highlighted by the fact that clinical meeting minutes lists attendance by GPs and nurse practitioners, but not other members of the nursing team.

These tensions are explored further in the discussion. They form a useful reminder that not all clinical learners at Sunnybank are completely satisfied with the learning environment, and that the danger of complacency is present in even the most supportive of learning environments.

6.4.6 Part of the team, belonging and trajectory, developing identity

For nurse learners there is a generally supportive environment for learning at Sunnybank, with approachable staff, availability of support, and protected time for reflective and formal learning. In each area there were concerns raised and qualifications made, something seen less amongst transient learners and not at all with the vocational medical learners. All nurses consider the learning environment to be excellent compared to previous experiences or colleagues in other practices.

There is a strong sense of teamwork and respect across clinicians, if anything emphasised by the closely defined exceptions to this (relating to facilitation style and two less approachable GPs).

Part of the team

Despite some professional tensions all nurses felt very much part of a close nursing team, and part of the practice. The idea of being *part of a team* comes most strongly from working together in a patient's best interest:

> I feel quite a team with the GP's as well although I do think that it is slightly different because obviously they are your employer as well so there is that slight difference but I do feel that we work well as a team and if there are any suggestions they get listened to.
> (Interview 10 Nurse)

> Say a patient came to see the GP and they had got a specific problem, turned out that they were diabetic that GP would then refer them to us, we would start whatever we were going to do treatment wise, discuss it back with the GP, the healthcare assistant would be involved. So we all do work as a team for that specific person and we refer back and forward between ourselves.
> (Interview 3 Nurse)

Some nurses appreciated the strength gained from experiences elsewhere and suggested concerns about *isolation* in a practice setting:

> I was a new practice nurse that had just qualified and I didn't have the other experiences that I have had I think I may have found it difficult because it was just… something… you know, working with the GP's and all the primary care team and what have you, when you have not done it before but I think because I have worked with a multi disciplinary team setting before…..I found it easier to sort of get in there and… say what I feel and…….
> (Interview 12 Nurse)

> Sometimes you do feel a bit isolated when you are just in your room for like six hours a day. I will be honest with you… the first couple of months were hard …[but] .. I do feel really settled now and… yes I do feel part of the team.
> (Interview 14 Nurse)

Even vocational learners, in the practice only part time (one day per week) or for a short (six months) placement, considered themselves part of both the nursing team and a wider practice team:

> **Nurse** I have got quite a good working relationship with the nursing staff here and we support each other in our roles ……and generally with the GP's you know.
> **Interviewer** So if you feel generally part of the practice is that more specifically one team more than the other or..?
> **Nurse** No, I think we all work quite well together and I think that is probably because we are all in the same building.
> (Interview 21 Nurse)

Nurse I do get included in things so I do feel as if I am part of the practice but it is the nursing team that I am obviously with the majority of the time.
Interviewer Ok and is that important to you, feeling part of the practice?
Nurse Yes I think it is… it helps you to feel more motivated and happier with your work… I think it is very important to feel part of the practice.
(Interview 22 Nurse)

Rapidly feeling part of the team appeared to arise from a much appreciated induction period (common for all learners), in some cases from prior knowledge of their mentor or colleagues, and very often from *feeling welcomed* and included:

> Everybody is so friendly… you can talk to anybody, like I say you can hide in your room if you wish but when I come in everybody knows who we all are… in fact only last week I was walking past the corridor and there is a big like… collage of the photographs and my picture was up there! I was really impressed because I didn't know it was there, it is on my smart card but my picture is actually included in the team and that was really… made me feel quite good about myself… oh that is me!
> (Interview 24 Nurse)

Engagement, belonging, trajectory

The question of professional development and career trajectory within nurse learners is fascinating, and much more complicated than with the medical learners. These nurse learners covered all parts of a spectrum of community nursing from health care assistant with in house training to established nurse practitioners with external mentoring to support continuing professional development. What is obvious however is that there is no clear career progression in general practice nursing, hence the concept of identity (beyond "nursing") is vague and this may influence ideas of *engagement*, *belonging* and *trajectory*. Equally nurse role models may often be medical rather than nursing colleagues. One example is nurse practitioners who may have a GP mentor and more in common with their GP colleagues than practice nurses. This is made apparent by their invitation to the GP educational meetings (unlike practice nurses) and the fact they don't wear nurse uniforms.

Nurses frequently referred to the requirements of *professional development*:

Nurse I can only speak for the nursing [team] but I think both probably, the nurses and GP's. I mean they are always forever learning aren't they? You learn one thing and then you are going on to another thing and it is for a lifetime isn't it.

Interviewer Right…
Nurse So …I think personally you have to… develop you know, yourself all the time but then again all I can say is that the practice… does encourage that.
(Interview 22 Nurse)

The benefits to patients of *professional development* were frequently raised as a motivator for learning:

> It is about moving forward and knowing about best practice. It keeps patients safe because obviously I have got to you know be able to up date myself and we don't use that system anymore it has to be done this way. It prevents patients having treatments that they shouldn't be having you know.
> (Interview 12 Nurse)

Learning amongst nurses was considered to come from *active learning*, being *part of the team*, and from *engagement*:

> My experience is mainly with the nursing team that we have got, I have got someone at the moment who is a newly qualified nurse and she is part of a group who were doing a practice nurse, like a foundation course for the next twelve months…. and we certainly just involve them in the team, the team meetings. They have a mentor to support them as well and work… alongside other members of the team.
> (Interview 10 Nurse)

And, as with medical learners, motivation came from *respect* and *engagement*:

> Doing the course itself has been fantastic but coming here it is… although I have been nursing such a long time I feel very valued here, most definitely as a member of the team and I have learnt so much ……..
> (Interview 24 Nurse)

The importance of trying to make even transient learners feel valued was also recognised:

> If I have got a medical student or a nursing student sitting in with me for a clinical session I would treat them like I would somebody who has come to work here permanently. I would want them to feel exactly the same and I do not discriminate in any way and so what I teach and the way that I do it is exactly the same, whether they are here for a day or here for a year, or permanent you know. So I suppose that is the way I would include them, make them feel important.
> (Interview 3 Nurse)

A distinction was apparent between different learners, and between *active learning* (being involved) and meaningful *engagement*. This appeared to come from tensions across professional learning, and reinforces the importance of trajectory in learning:

> We get medical students that sit in with us and I think what they want to get out of it is obviously different to what perhaps a new practice nurse or a registrar would want to get out of it. They usually are looking at sort of a task, they want to get signed off for giving an injection or whatever … there is certainly plenty of opportunity for them to do that and we do encourage them to actively participate....rather than just sitting and observing.
> (Interview 10 Nurse)

Developing identity

Nurse learners sometimes had *role models* within nursing, internally in the practice or externally. Just as frequently however the nurses' role models were GPs, both clinically and as educators. Two quotes from one of the nurses illustrate this point:

> Being in a GP practice….it is a lot more personal and you know your patients. [My GP mentor] astounds me and many a time I will go in and say to him 'oh Fred Bloggs again' and he will say 'oh yes the family is this and the aunt did that and the grandma did that' and I am going 'how do you know all these things?!' Because he has been seeing these patients for years and he has delivered their children or even delivered them and seen them grow up so it is a massive difference that way… that is where your GP family thing comes into effect whereas in the NHS you are just another person.

> Regardless of where I go after when I finish my course the learning has been absolutely fantastic, definitely. Like I say [my GP mentor], he is such a… he is so good at teaching, he has got a mind field of information … if he doesn't know something, if I have asked him a question and he has said 'oh I don't really know that' he will look it up or he will say 'what do you think it will be?' and then we will both look it up.
> (Interview 24 Nurse)

Career *trajectory* was considered a *trigger for learning*:

> I want to learn, I am motivated and if I don't know something then I want to learn about it… I want to….develop my own personal development, for my future career, my future role you know, as a practice nurse in primary care.
> (Interview 22 Nurse)

Career progression in primary care nursing is not simple or defined. This can cause problems with clinical and educational support, role modelling and professional development. Within the practice nurse learners are involved in innovative schemes to help with primary care nurse career development. These new schemes and practice support for them are welcomed:

> I am fully supported within the practice and also on the training programme as well … we have been sort of fast tracked with the training… all this is trying to build up our skills and knowledge so that at the end of twelve months we can then find employment as a practice nurse because apparently [in] this area… there was a shortage of qualified practice nurses and… this is why this pilot scheme is being run.
> (Interview 22 Nurse)

Equally similar schemes for nurse practitioners are welcomed but the *authenticity* of learning and teaching is questioned:

> **Nurse** The University lecturers need to get out of their offices and live in the real world sometimes… definitely…
> **Interviewer** Right ok… and what is the difference… what..?
> **Nurse** I think sometimes it can be too… they come across, it is too academic… it is not… you can be academic… you can have the academia but be more clinically practiced, do you know what I mean..?
> (Nurse Interview [Identifier withheld])

6.4.7 Summary of findings from nurse learners

Nurse learners re-emphasised many of the points previously seen for other clinical learners. There were more similarities than differences:

- The main points of agreement included a general appreciation of the supportive, highly organised, and high quality learning environment

- Nurse learners considered some GP clinicians less approachable and mentioned isolation as a problem for practice based nurses and for clinical learning.

- Nurses tended to value formal and informal learning equally, but had some issues with the content, control and facilitation of the formal learning sessions.

- Nurse learners very clearly valued reflection though appeared to view it in more formal structured and supported terms than other clinical learners.

- Nurse learners considered themselves part of a team (though often identified most strongly with the nursing team) as well as part of the wider practice. They considered that engagement and belonging was important to learning.

- Finally professional trajectory and role models were a strong stimulus for learning, but often this stimulus was across professional groups.

6.5 Perceptions of those supporting clinical learning

This short section presents findings from interviews and observations regarding administrative and management support for learning. Interviews were conducted with the practice manager and with three members of the administrative staff involved with clinical learning. The decision was taken in the light of consistent and spontaneous praise from clinical learners across the spectrum of experience regarding the way learning was supported. The perceptions of those supporting clinical learning will help contribute evidence to the case study, triangulate findings from other sources, and help build a picture of the prevailing learning culture.
Quotes are identified as "administrative team" to preserve anonymity.

The main features of these interviews, and of observation of the administrative team, are the evident enthusiasm and pride for the clinical learning:

> I think that it is that ethos and that culture of continual learning and development that is valued within the practice and we have… people who have asked if they can specifically come to Sunnybank because of the reputation that the practice has as a teaching and a learning and development culture and for me as somebody who is involved within the team I feel very proud that we have that.
> (Interview 27 Administrative team)

The administrative team both expressed willingness in *supporting learning*, and all personally felt *supported to learn:*

> [We] see the students to get them sorted out with the smart cards and obviously if they are doing… they usually need to do some searches ……so we help them do the searches. I don't know what else we do with the students really… just anything that they want they come and ask us and we will do our best to sort them out.

> We do spend a lot of the time… you know, helping people or showing them… if they are new, showing them how to do things but… I don't think it is a bad thing because I think people should just ask until they are confident to do it by themselves. If they have got to ask you… twenty times how to do the same thing then… it is just the way it is.
> (Interview 17 Administrative team)

This willingness to support learning for students and clinical learners applies equally to internal learners, and is corroborated by personal learning experiences:

> Whenever … anybody is doing training, we always put them in firstly with a member of the team… we don't just fly them out there alone, solo so to speak.
>
> I have started off from the bottom and I have worked my way up and I feel that the training and support has been fabulous.
> (Interview 18 Administrative team)

The administrative team comments helped triangulate findings from other sources in mentioning strengths of the practice as the *approachability* of staff, the *culture of learning*, and the *whole team approach*.

Approachability was mentioned as a personal viewpoint …….

> Everybody is approachable and I can honestly say that there is not one person who I wouldn't dare go and ask or anything like that so…
> (Interview 18 Administrative team)
>
> I feel able to go and speak with any of the GP partners if there is something that I don't understand or if there is something that I feel that I need further development in and I have always found them very supportive.
> (Interview 27 Administrative team)

……..… and as a desire to accommodate clinical learners:

> When anybody new comes into the practice, they are always shown obviously around the building, introduced to staff and … when the [GP] registrars come in, I tend to go through a brief induction… just to make sure that they are shown around, they know where basic things are… tea, coffee, toilets and introducing them to staff. I would say we are a friendly team and nobody is unapproachable, students will pop down and ask if someone can do something and we will do.
> (Interview 18 Administrative team)

The administrative team (and not just the practice manager) frequently referred to the learning needs of the practice being important, and in many ways being more important than personal learning needs:

> I think that those are probably the greatest strengths of this practice… looking at the education and development of the entire team and not just individual members of the team.
> (Interview 27 Administrative team)

The impression given (even more strongly than amongst clinical learners) is of a strong sense of *learning from each other* but more than that a *practice ethos* and *culture of learning* which includes a *pride in the practice:*

> Things are shared… when we have our practice meetings if anybody has completed any courses recently or passed something it is shared amongst the team at our practice meetings...
> (Interview 18 Administrative team)

> [It is the] ethos that everybody is willing and encouraged to support one another to develop.
> (Interview 27 Administrative team)

Education is central to that ethos:

> Each and every member of staff who is involved with training and educating and learning within the practice feels that enrichment… that personal enrichment from being involved with different members of the team and seeing those members of the team grow and develop
> (Interview 27 Administrative team)

Equally the practice culture is not just of encouraging personal development and education, but of acknowledging and learning from mistakes:

> The practice policy is always that we move forward and we learn from things so even if… I shall not say even if mistakes or errors happen… what we can do is to learn from that and develop from that and move forward from that so I think the team have been encouraged to share where things have gone wrong be it a clinical aspect, be it a policy decision, be it something that… maybe a minor occurrence …but to feel that they can share that openly so that the entire team can learn from that and move forward.
> (Interview 27 Administrative team)

When asked specifically who makes up "the team" the answer from administrative staff was clear:

> **Interviewer:** When you say you are part of the team what was the team… do you mean..?
> **Response** I mean the whole practice… … I mean doctors, nurses, admin… everybody… it all feels like one big bubble so to speak that I would say I was in.
> (Interview 18 Administrative team)

> You do feel part of the practice as a whole because everyone is very friendly and you can have a conversation with anybody.
> (Interview 17 Administrative team)

The overall impression is of a whole team approach being driven with almost as much passion from the administrative team as from the GP partners and senior clinicians. And clinical learners, or some of them, are considered part of that whole team and the practice:

> Oh… the [GP] registrars they are all part of the practice yes, yes because we get to know the registrars a lot because… as well they are always wanting to know something, they tend to be in the office quite a lot so you tend to get to know the registrars and then it is quite sad when they go.
> (Interview 17 Administrative team)

The medical students however are "just students"……

> **Interviewee** With the students because it depends on the student… some of the students you see a lot more than others.
> **Interviewer** I guess from your point of view and from an admin office… do they feel part of the practice or are they just students that come?
> **Interviewee** They are just students.
> (Interview 17 Administrative team)

……..…although they "make themselves at home", upsetting staff in the process:

> **Interviewee** They seem to make themselves quite at home in the staff room and… take over and… so I think they are quite made to feel welcome in that aspect because you can sense it. Some of the girls …..will go for their lunch and all these students will be sprawled around on the settee … so they obviously do feel at home here …..
> **Interviewer** And how do the staff feel about that?
> **Interviewee** Well ...a little bit annoyed because we only get half an hour for our lunch…
> (Interview 16 Administrative team)

In summary, data gathered from the administrative staff supporting learning have been valuable to build a picture of a culture of learning in the practice, characterised by a whole team approach, approachability, support for learning and personal development, and a willingness to learn and share ideas. A pride in the practice and a mutual respect amongst members of staff appears to underpin the other elements:

> We have had people who have actively sought the practice out to either come and work at the practice or to be a student at the practice because of the reputation that the practice has as a learning organisation. I think that… all those involved in that should feel very proud that their standards are high, that they continually themselves develop so that they can support other learners within the organisation.
> (Interview 27 Administrative team)

6.6 Sunnybank Medical Centre: the nature of a teaching practice

In this final section of Chapter 6 I present ideas which cut across professional and learners groups. These ideas relate to the clinical environment for learning, the link between the education of clinical learners and that of educating patients, and to the nature of being a teaching practice. I have identified codes, categories and themes emerging from the data, and highlighted outliers, in order to increase transparency and trustworthiness.

6.6.1 Learning environment and culture of learning

Various codes, and categories come together into a theme best described as the clinical learning environment. This includes ideas of ethos, culture of learning and ideas from the literature such as learning climate. Ideas contributing to this theme were obtained both directly and indirectly through interviews and from observation.

Sunnybank was viewed across its clinical learners as a practice where education and learning is central to what it does and, with very few exceptions, it was thought to do it well. Clinical learners from all professional groups described and sometimes defined their own ideas of the culture of learning at Sunnybank. I have picked a range of ideas which appear most representative of the views expressed.

A culture of learning, a practice ethos

Many clinical learners referred to *ethos* of practice alongside the phrase *culture of learning*. There was a feeling that learning and teaching were the passions which defined the practice. The *passion for teaching* was recognised across all professions and learners:

> They love teaching you can see that.
> (Fourth year medical student Interview 25)

> They love to teach people who come through their doors what they have found out themselves, it is not well that is my piece of paper and you can't look at it… it is not like that it is… this is what we do and we want to share it with you so from a teaching practice… they like to teach and they like to teach anybody who wants to listen… definitely.
> (Interview 24 Nurse)

> My trainer and the other trainers in the practice definitely sort of really into teaching and you know, encouraging learning and everything but… also the partners you know, they are quite sort of involved in stuff, whether it be medical students and you know, they give you extra information, extra help you know, it is easy to sort of go and knock on a door and ask them something.
> (Interview 13 GPStR)

It is a passion recognised and shared by the GPs:

> [It is] the whole ethos of the organisation that is different here, the organisation is very committed to educational training in terms of you know our medical students, our nurse practitioners, our GP registrars and ourselves of course……it is part and parcel of what we do.
> (GP Interview 4)

> It is hard work, it consumes huge amounts of time outside of normal working hours but it is worthwhile because I enjoy it and I enjoy coming to work. Seventeen years as I GP I enjoy coming to work on a Monday morning and the reason I enjoy it so much is the training that makes it so much fun, to have that enthusiasm from the registrars at the start of their careers, it is infectious, it rubs off on you. You feel stimulated; you enjoy it so yes it is it is very important.
> (GP Interview 4)

Alongside the passion for teaching was the idea of questioning the status quo, of *challenge*, of personal, professional and practice development which almost formed a practice philosophy:

> I do think there is a culture of learning, people… sort of challenge… perhaps challenge is a bit of a strong word but question all the time … we tend as a practice not to just accept things at face value or because that is what you have always done. I think there is a general ethos of looking at what you are doing and seeing how you can improve it.
> (Interview 10 Nurse)

> We are always reflecting back on what we have learnt and how it has changed the way that we practice and helping us to identify further needs. So it is definitely seen as a very positive thing but also part of what we all need to do on a day to day basis really.
> (GP Interview 5)

One GP specialist registrar suggested a whole practice approach to education, with a specific drive from the "top dogs", a reference to the main GP educators who were felt to drive the culture of learning:

> Maybe the top dogs that really, really push it but I think generally, the general ethos is that people want to pass on some of their experience and help you know, the up and coming sort of doctors, so yes.
> (Interview 13 GPStR)

Both those points appear entirely consistent with observation in the practice, though "the tops dogs" strongly feel a *whole team approach* is essential:

> I think having that commitment across the board whether it is in your admin team, your management team, your GP's is essential. We are always evolving and changing the way we do things in response to the feedback that we get. I think that is really the mark of an organisation that has got a commitment and ethos that is committed to learning and education.
> (GP Interview 4)

Clinical learners at all levels share the impression of the *whole team approach*:

> When you come here you really get the impression that everybody is really on board to teach so I guess you have got that community there that everybody wants to share their information, their knowledge, their expertise with other people and in that kind of way also encourages your learning.
> (Fifth year medical student Interview 8)

The elements of learning culture: commitment, time, and energy

Clinical learners across professions feel that part of the culture of the practice is the availability of support, approachability, the high quality formal teaching, the encouragement for informal teaching and reflection. Those are part of the learning environment. They are underpinned by the time and energy invested in education. Sunnybank has a *commitment* to learning, made clear across all learners and the GP partners:

> A commitment to improve and it is about being able to change the way you do things and it is about the ability to take feedback, particularly negative feedback and do something with it, change the way you do things.
> (GP Interview 4)

One sign of the *commitment*, recognised by those learning and those teaching, was the protected *time* to support education:

> It is like a conducive learning environment, you are encouraged to ask questions and think about why you are doing something. There are lots of people available for advice, everyone is approachable, you have got protected time for learning,
> (GPStR Interview 15)

> The time and the ethos, the thing that we have got with the medical students, with the nurse practitioners… is protected time. That is the most important thing and… you know, you can't see that or touch that can you?
> (GP Interview 28)

There was also a real sense of energy and dynamism across the practice, and this energy was channelled towards sharing expertise:

> This is very dynamic here, very… you are encouraged to learn as much as possible, for yourself and for the practice and for the patients so…
> (Nurse Interview 22)

> Everybody wants to share their information, their knowledge, their expertise with other people.
> (Fifth year medical student Interview 8)

One strong category from the data, and from observation, was an obvious desire for *excellence in learning*, a desire to "be the best":

> I think we are very progressive, we like to try and be the best in terms of the way we develop our education training and our learning environment. I think we … as a bench mark when we go and visit all the other practices we are doing well and that is rewarding in a way. It encourages us to keep on trying.
> (GP Interview 4)

Sometimes even the "top dogs" appear to have doubts about this drive to be progressive:

> … it just seems that it is part of the way that we work… I think that we are all sensitive to the fact that we all don't know everything and that there are other resources here… who will know more than us… my only worry about that is that we have got a lot of initiators here… there are an awful lot of initiators around… that is a bit worrying sometimes.
> (GP Interview 28)

6.6.2 Patients and learning

It was clear from the emerging findings that many meaningful learning experiences were triggered through patient encounters, or an observation of patient-clinician interactions. This led me in later interviews to explore parallels between a passion for education of clinical learners, and whether the same passion occurred for patient

education. Equally of interest is whether the mutual respect observed between educator and learner is also present between clinician and patient.

Patient empowerment, doctor-patient relationships

Clinical learners picked up from their tutors the importance placed on patient education, especially in terms of *patient empowerment*:

> Patient education invariably comes into it… into our management plan and I think that is really useful both from… a patient empowerment point of view and from your point of view in your work load and all the bits that come with being a GP. Teaching them a bit about their disease it makes them feel a lot better so it meets their goals better and it meets your goals better and… so and that is something that we are encouraged to do.
> (GPStR Interview 15)

> When they have made a diagnosis ……they always print off a leaflet with information… and also they always say 'don't hesitate to come back in' and you tell them symptoms to watch out for, you know just cover yourself so… you give that information to patients to know a bit about their condition, you give information to patients about things that could go wrong ……..… which I think is really good and I think that they do encourage it.
> (Fourth year medical student Interview 25)

This willingness to engage with patients and share information appears to be part of a *doctor-patient relationship* based on a culture of respect, something noted in interviews by several participants (including transient learners), but also very strongly when patients were discussed by clinicians during observed meetings:

> The patient doctor interaction which tends to be a bit more relaxed than in a hospital setting where it is a consultant and the white coat effect is obviously a lot more prominent there.
> (Fourth year medical student Interview 1)

The same student recognised this was relevant to nurse-patient relationships also:

> The white coat effect is even more reduced because a patient can relate to a nurse a lot more and in that sense again you can see a bit of a variation in the communication skills and the dynamics between the patient and the clinician be it a nurse or a GP.
> (Fourth year medical student Interview 1)

Transient learners both learned from these observations, but also contrasted them with previous hospital experiences:

> You are actually speaking to patients and getting a relationship with them whereas when I was in the hospital it was like "OK do an examination on that person in there, pull the curtain to and do it." You don't really speak to them at all you just kind of do it.
> (Third year medical student Interview 7)

One interesting observation was that whilst patients normally agreed to be seen by clinical learners, this was not always the case. Whilst this might disrupt education in the short term, it makes a profound learning point about clinician-learner relationships:

> **Nurse** One of the other doctors said 'oh this is [X] of the [nurse team]' and [the patient] said that he didn't want anyone else in which was fine.
> **Interviewer** Is that an unusual thing or is that….?
> **Nurse** It has never happened to me before, even though I said that is fine I thought… it has never happened to me in all of my nursing career
> (Nurse Interview 24)

Declining an involvement with learning was unusual for Sunnybank patients, but even transient learners appeared to recognise patient choice, and respect it:

> The patients are also willing for us to stay in and to talk to us and to let us you know examine them and stuff like that which is also very important.
> (Fifth year medical student Interview 8)

The nurse interviewed above recognised this was an issue of control, and that clinician–patient relationships were far more equal in general practice (presumably as attendance is more obviously under the patients' control):

> I mean it is acceptable if a patient doesn't want you in there. You just take it on board that they don't want you in there, but that was an eye opener again because that has not happened to me because I have always been more in control. When somebody comes to the A and E department you are the one that is in control because they are there because they need you to look after them rather than send them away… so that is different.
> (Nurse Interview 24)

The respect is not one sided. Both clinicians and learners strongly valued the role of patients as a source of information, and in providing an environment for learning:

> Patients are a source of information in their own right you know. Sometimes patients come with their Daily Mail and go 'What is this Ascot Trial?', 'Ok, let me look that one up'. So that can be useful and often particularly in rare conditions, patients are actually a real authority. So you know we have got parents with kids with really rare genetic disorders and they bring in a wedge downloaded from the internet, which is really helpful. They can actually be the source

> of information in terms of either bringing it or their experiences of the condition that they have had, offers a unique insight and a resource in its own right.
> (GP Interview 4)

> They also bring the experiences… you know, the way they have been treated by other healthcare professionals and… the people dealing with the care that you don't think about… they bring that up as well… the bad experiences and the good experiences. So I think that you can learn from patients in that respect…
> (Fourth year medical student Interview 25)

Authenticity and immediacy

The category of *authenticity* arose across learner groups, and included the codes *real word medicine*; *real world patients*; *patient perspectives*. Medical students particularly remarked on seeing patients' problems in the context of their lives. They are reminded that textbooks offer only a partial picture:

> What you learn is their perspective on their disease and more than that, their outlook and how it has affected them because you can read books on diseases that will tell you what you need to know but they won't tell you how it affects somebody. How that person copes, what they do, how their life has changed as a result.
> (Fifth year medical student Interview 8)

Immediacy is another interesting idea, unexpected prior to the research. It describes the emotional impact of seeing a patient first (before an experienced clinician). This appeared a strong driver for engagement and learning (for transient learners particularly). Much of this was discussed previously, but one quote helps illustrate the impact this has:

> Obviously things don't tend to present in a textbook way all of the time … I think this is the difference between this and the hospital… in hospitals they pick out the textbook presentations and the textbook cases whereas [here] you see it how it happens and you get a patients take on it without the doctor having seen them first …
> (Fourth year medical student Interview 26)

Where clinical learners see patients within meaningful encounters in general practice (active learning, seeing real cases present in real time, hearing patient stories first) are these encounters somehow more likely to trigger meaningful or deep learning? Is it possible that there is less immediacy in practices where learning is more passive or in hospitals where patients are seen second or third hand (and so whilst the stories

themselves may be more dramatic, they perhaps appear as stories and not real lived experiences with some of the emotion removed from the encounter?).

> They keep telling us in PPD [personal and professional development] ….. check how much the disease affects someone's life but you don't really think about it until you are actually in that situation, that is the most important point, you need to be part of that consultation or part of that patient's life to see how much it impacts them. Just asking… going and visiting someone and saying 'Oh yes, has this impacted your life?' you are not going to get the full benefit but when someone comes in like devastated, crying… you can see the extent… you know, the strain on the family.
> (Fourth year medical student Interview 25)

I am not implying Sunnybank has got it right. There were dissenting voices suggesting too much reliance on tutorials and too few patient encounters. However this is an important emerging finding which merits further exploration. It might be one reason why feedback especially from transient learners in general practice is often positive.

Patients and education

If clinicians enjoy passing information onto clinical learners and seeing them develop, one of the findings from the study, then could the same be said of a desire to educate and develop patients? It appears from clinical learners and GPs that these areas overlap:

> He talked about it to the patient, about how her diabetes… education session would benefit her, to get her motivation up, to lose some weight… to get her blood sugars better… that sort of thing. I guess that is one of the examples that I have seen today, how the doctors engage the patient in education.
> (Fifth year medical student Interview 20)

> When I was sitting in with the other GP's certainly I noticed there was lots of you know; "This is what illness you have got", "This is what you can expect to be normal, if any of these things happen this is abnormal, so then you can come and see us" and you know, things like pointing them in the direction of resources, online resources or leaflets … giving them time to go away and look at that and the opportunity to come back and ask questions.
> (GPStR Interview 15)

Where medical learners discussed education of individual patients within the consultation, the nurses were more impressed with initiatives that encouraged patients to ask more questions, and with community outreach work:

> You have got an opportunity then to encourage healthy eating, healthy lifestyles… there is supposed to be a display board going up in the waiting area… showing people healthy options of eating and things like that. Hopefully, that will encourage people to ask about it…
> (Interview 22 Nurse)

> We did a BP sort of like programme thing as well where we went out and took blood pressures and various heart [tests]… at the co-op and at the pub and things like that and I found that was quite interesting because it… it was more about the feedback we where getting from the patients out there as well, what they knew and what they didn't know. So I learn a lot doing that as well…
> (Interview 12 Nurse)

There were specific examples of programmes which promote patient expertise and empowerment, which are strongly encouraged by clinicians:

> **Interviewer** Are you involved with patient education… you know, does the practice encourage ...?
> **GP** Yes… the prime example would be diabetes… all the type twos [Type 11 Diabetes Mellitus] we encourage them to go on the expert patient scheme… it is not expert patient… it is expert around diabetes and that we really encourage and we really try and get them to go. There are similar initiatives now with COPD [Chronic Obstructive Airways Disease] as well but again patients seem a little reluctant… until they have been and then they say it was good and why didn't you send me sooner!
> (GP Interview 28)

Despite frequent reference to the "whole team" approach to clinical learning there was no discussion of patient participation or partnership. It appeared from this research (interviews and observation) that whilst the contribution of patients towards education was greatly valued there was little practice commitment to involvement of patients in the organisation or assessment of teaching. This is probably not unusual across similar practices, but was a surprise. The practice prides itself on being "one of the best" in its approach to education, and there is a strong drive in the NHS to encourage patient participation in education. It seems surprising that it doesn't more actively embrace patient involvement in educational planning and provision.

6.6.3 Reflections on being a teaching practice

This final section brings together ideas from across the spectrum of learners and professional groups around the theme of being a teaching practice. This is an area of interest from my own experience in education, from the literature, and a core

research area pursued during the interviews, observation and via documents. Clinical learners, teachers and those supporting learning offered a variety of definitions about what it means to be a teaching practice. I offer first the more general ideas and then consider what appear to be essential components, at least within Sunnybank.

A whole team approach

Part of being a teaching practice is that the whole practice team should be *involved*, especially recognising the importance of administrative and management support:

> **GP** As a practice [we] are committed to delivering quality teaching and that involves everybody, because we use everybody.
> **Interviewer** Yes.
> **GP** It is not just the lead GP, all our partners are involved in teaching, our nurse practitioners are actively involved in teaching, our GP registrars, are practice nurses are, we use our social workers, we use our district nurses, all to provide different insights into primary care and to use that as a unique learning environment, seeing people doing their different jobs. So I think that is what it means to us about being a teaching practice, the whole organisation is committed to it particularly our practice manager who organises and supports us, enables us to actually deliver it.
> (GP Interview 4)

Equally, the drive for being a teaching practice should be to *benefit* the whole team, including the patients:

> **Interviewer:** Just tell me again why it is a teaching practice?
> **Nurse** Why it is… just to… well it is to benefit the patients and benefit the practice and to benefit the healthcare professionals who are working there, whether it is the GP's, the nursing team, whoever it is… the… whoever it is and people… are motivated, encouraged to develop their own professional and personal development.
> (Nurse Interview 22)

Facilities, enthusiastic staff, patient engagement

One area that interested me was to explore whether transient learners with temporary placements had different perspectives on this subject. These learners (all medical students in this case study) identified three key elements, neatly summarised by one fifth year student. The underlining is added for emphasis:

> A place that is geared up for teaching and I think that has got many aspects to it, so for one it has to have the provisions which this place does, it has to have some books, computers, a place to work, a place to relax, a place to have seminars you know. It also has to have the enthusiastic staff, you know people who want to teach and you know, people… very organised people who will arrange for patients to come in for you to talk to … or are prepared to talk to you. There is no point having all the provisions and the enthusiasm if none of the patients want to talk to you or want you there. So I think it has to have a combination of those three things really to be a successful teaching practice.
> (Fifth year Medical Student, Interview 8)

The three elements therefore are provisions (facilities), enthusiastic staff and patients willing to engage with learners. I will explore each in turn:

Facilities for teaching include space for teaching and learning resources:

> I am just trying to think but yes… you have got like the library… there is the resource room at the other end where they have got kind of a selection of undergraduate textbooks and you have got internet access and stuff like that… and… teaching aids and stuff so yes…
> (Fourth year medical student. Interview 26)

> It is nice to have a room like this where people can all get together and you know, there are resources, there are computers, in the room down the bottom there is a big computer room, there are a lot of books and models and stuff that students can look at and see, just things like that.
> (GPStR Interview 13)

Both medical students and GPStR feedback revealed frustration that these resources at times appeared inaccessible:

> The library and book cabinet were always locked without requesting the key which I felt was a barrier to learning.
> (Fifth year medical student feedback 2009)

Various learners commented on the importance of physical space or *learning architecture* in promoting informal learning and engagement. Not all clinical learners considered it a strength of Sunnybank as a teaching practice:

> Everybody has different rooms and the staff works downstairs and the medical students, if they don't have clinics, they stay upstairs or in the computer room and I guess the physical separations makes the social separation worse. So I guess they could improve that……
> (Fifth year medical student Interview 20)

That comment was interesting when compared to very positive views expressed by vocational and embedded learners where the physical layout was considered as a

practice strength which enhanced learning and facilitated the supportive atmosphere. From indirect observation the single storey arrangement of clinical rooms within close proximity to administrative offices did appear to lend an intimacy which might encourage informal contact, especially between vocational or embedded learners. Equally the student room and teaching rooms are somewhat removed and are likely to minimise informal contact between students and other learner groups.

Enthusiastic staff are essential to support learning:

> I spoke to the practice manager and said how will I go about searching for these patients and they said "oh that is fine, if you give us your inclusion, exclusion criteria we can run the search for you then you can just go through and just pick out the patients that you need" which was great. It was completely in their own time, they didn't have to do it at all … but she just said absolutely no problem, they are so happy to do it, it is great
> (Fifth year medical student Interview 9)

> The practice manager is one of the lynchpins in this whole learning process, she facilitates and it is great really, we have no problems from that aspect.
> (GPStR Interview 11)

Informal observation confirms the latter point. The manager's office is central to the practice, and was frequently approached by learners seeking the pastoral or practical support which appears to encourage learning.

Patient engagement is an essential part of the success of Sunnybank as a teaching practice. I know from observation (and prior experience) that teaching a variety of learners, especially more junior transient learners, requires a huge commitment by the patients, and the administrative team who organised their involvement.

> The patient realise that we are here for a reason and a purpose and the patients do comply simply because the doctor has introduced us appropriately.
> (Fourth year medical student Interview 1)

It was perhaps illustrative of the patient/doctor respect observed by students, that they consider patient involvement to be an active requirement. Would the same observation be made in hospital where perhaps patients are arguably more passive players in clinical learning?

Students recognised the importance of having a *variety of clinical learners*, and therefore the possibility of *learning from each other*:

> A lot of different levels come into this practice which is really good as well… rather than just taking a few fourth years and that is it or fifth years, you have got second years coming in, fourth years, fifth years, registrars you know, all different types of people. That is another thing, even the [GP] registrars have come up to us and said … 'if you want any help with the ECG' for example, you know, 'we will help you with it'.
> (Fourth year medical student Interview 25)

The finding was corroborated through the vibrancy of interaction across learners of different professions and experiences within the observed educational meetings (both multi-professional # Obs3,6,8,9; and nursing # Obs 5,7). Diversity of opinion and background appeared to stimulate debate and dialogue. Where this challenges orthodoxy it may lead to learning.

Learning from each other, a community of practice?

I have avoided relating my findings back to the social learning literature, but the importance mentioned by various clinical learners of learning from peers is significant. Second year medical students, having been given a definition of community of practice, made the following observation:

> **Student A** We have got a common purpose haven't we…?
> **Student C** And we do learn from each other.
> **Student A** We get on very well in a communal sort of way.
> **Student C** I think it is a better kind of learning as well because like I actually remember most things that I have been told or learnt over the last two weeks.
> (Second year medical students Interview 23[FG])

These findings were again corroborated by observation, particularly within nurse learning meetings (# Obs 5,7) where it was evident knowledge was shared within a respectful supportive environment.

A high quality practice, striving to improve

A teaching practice therefore needs a supportive environment, excellent administrative support, appropriate facilities, enthusiastic and skilled staff, patients willing to engage with teaching, a variety of learners, and perhaps a whole practice commitment towards education. It was also clear across the case study that engagement with teaching came from respect, and one component of that was clinical excellence both amongst partners, nurses and as a whole practice. This is one of many comments coded as *high quality practice*:

> We do realise that we do need to keep really up to date with the evidence because obviously it is important when we are teaching as well as for our own professional knowledge.
> (Nurse Interview 3)

On top of this there seems in Sunnybank to be a restlessness to continually improve, and to be the best. This was considered an important part of being a teaching practice:

> A teaching practice I would say is a practice that needs to… be enthusiastic, be enthusiastic about teaching and to encourage people to try and build up their skills and their confidence and to make the most of learning opportunities and you know, so that they are basically improving in which ever domain that they work in so that they are becoming the best they can be as opposed to just you know, plateauing.
> (GPStR Interview 13)

More than a sum of the parts

Whilst all these elements might add up to being a teaching practice, it is possible that they might be present but a practice still wouldn't appear to be *geared up for teaching*. Many learners commented on the essential ethos or culture of learning as something more than a sum of the parts mentioned. This idea was also suggested from the administrative team:

> A teaching practice is an environment where you feel… comfortable and where you feel supported and where you feel that you are valued and that your development is encouraged.
> (Interview 27 Administrative team)

These extra elements of being a teaching practice remain hard to define. For Sunnybank they appeared best summed up with two observations:

The first are the frequent references from observation notes of "banter", "laughter" and "fun". Within the context of a serious, respectful educational environment these observations appeared to reflect a vibrancy, energy and level of comfort which enhance the interactions which are perhaps essential for learning to occur.

The second is best suggested in the words of a GP who suggested (in a comment with wide resonance across all interviewed for this case study):

> The whole organization is very committed to educational training ……. it is part and parcel of what we do.
>
> (GP Interview 4)

Sunnybank Medical Centre offers an example of a teaching practice where clinical learners at various levels of experience value the opportunity for learning presented to them. They have suggested that learning occurs through engagement with a variety of learning opportunities and a variety of clinical learners. It is enhanced through having excellent facilities, a supporting administrative and management team and a culture within the practice that values clinical excellence, mutual respect and continuous questioning, learning and development. Not all elements mentioned here will be essential for being a teaching practice, but they seem within Sunnybank to provide an excellence in learning and teaching recognised by a variety of clinical learners almost without reservation or exception.

6.6.4 Transferability: is the learning culture at Sunnybank unique?

Sunnybank has a strong and supportive culture of learning, with time, energy and enthusiasm invested in personal and practice education, and in transferring expertise. Is this unique to Sunnybank? Are the findings likely to be transferable to other practices?

Clinician perspectives

The GPs at Sunnybank have experiences of working in other practices, colleagues in other practices and formal associations with other practices through their work in

appraisal or education. They feel that Sunnybank is unusual, and are grateful to be part of the practice:

> The overall ethos … the whole design of our organisation [is] geared towards delivering and optimizing training and that is very different to where I have been in the past.
> (GP Interview 4)

> I have got sort of friends who work in practices where people don't get on with each other or don't embrace the kind of learning culture or don't encourage their colleagues to go off and do other things and therefore bring other expertise into the practice. That must be very difficult for those practices. Certainly as I have already said I think if this was a practice like that I don't think… well I know I would not still be here now.
> (GP Interview 5)

The GPs not only consider the practice different, but also "one of the best". This might sounds conceited, but it does reflect findings seen from other clinical learners:

> I go and inspect practices as part of my programme director [role] .....and yes, it is different. I think we are very progressive, we like to try and be the best in terms of the way we develop our education, training and our learning environment.
> (GP Interview 4)

> We really concentrate on it and continually look at it to make sure that it is improving on a day to day basis. So yes you know, I think that as teaching practices go, my thoughts are that this is one of the best.
> (GP Interview 5)

Learner perspectives

Data from across clinical learners suggests the GPs perception is widely shared. The quotes given are skewed towards transient learners as they will have a variety of placements to compare experiences with (and should have no reason to exaggerate their opinions as they are not employed or retained by the practice):

> I would say it has been excellent, it has been much better than anywhere else
> (Third year medical student Interview 7)

> I compare it to the other GP that I went to before… this practice is much superior you know it is… much better. In terms of the teaching, in terms of the freedom… but I don't know whether it is just to do with chance or just to do with the stage of learning that I am at now that I am given more responsibility.
> (Fourth year medical student Interview 25)

> This is one of the best… well organised placements that I have had… ever I think!
> (Fifth year medical student Interview 19)

> I have found it perhaps, if not the best, one of the best practices that I have known or learnt about from a teaching point of view.
> (GPStR Interview 11)

Some reflections on clinician and learner perspectives

One concern of doing in depth case study research is that it might offer great insight for the environment concerned, but be of limited value outside that environment. The issue of transferability from interpretive research work was discussed earlier, but comes down to two arguments. The first is that research may generate theory, and that theory can be applied in similar environments. The second is that unless I have chosen a particularly unusual practice there will be relevance for clinicians and those involved with developing, supporting, or assessing education in similar practices.

Sunnybank was purposively chosen as a typical teaching practice with a range of learners. What has arisen is a picture of a practice which supports learning and teaching across a range of professions. According to participants in this research the practice does that with a passion and quality that many feel is unique or at least "one of the best". Is this research bias (telling the researcher what they think is the right answer)? Is it group think (everyone says it's the best, it must be)?

I would reject both these suggestions, at least in the main. I have argued strongly for the trustworthiness of my findings. Many of the stories of excellence in education are corroborated from transient learners (who have no reason or advantage to say this), and from observation and documentary evidence as well as interviews. It does appear that Sunnybank has an unusual mix of highly organised learning and teaching, and a particularly positive and supportive attitude to education.

I have no reason to suggest Sunnybank is unique in those respects, or that the findings from this research couldn't be replicated elsewhere. My personal experience includes working in and visiting many teaching practices with a similar passion for education. Sunnybank may be amongst the best and a beacon of good practice, but it

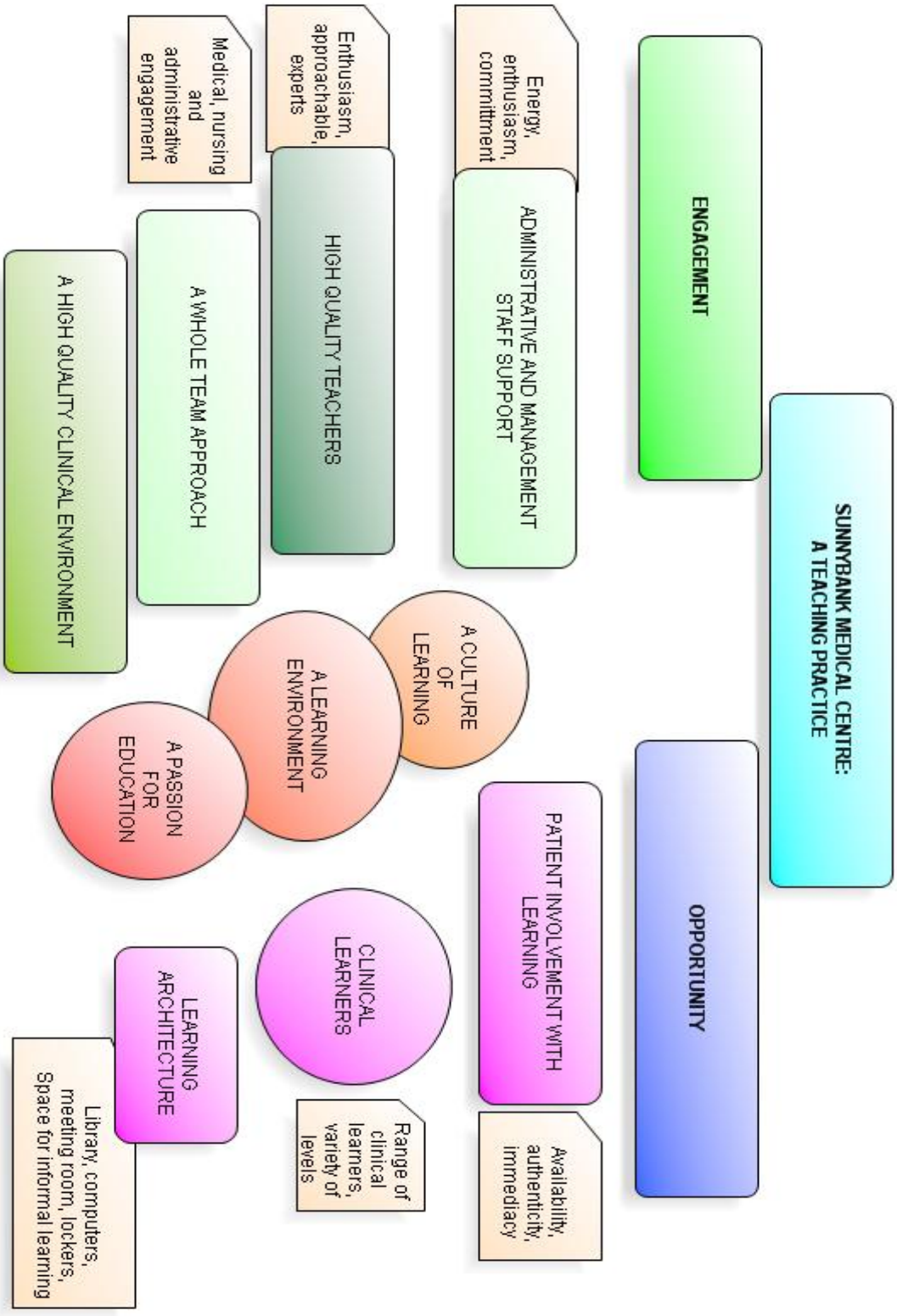
is not unique. Clearly what would be ideal would be to explore and test the findings emerging from this interpretive work across other practices and settings.

6.6.5 Summary: elements of being a teaching practice

My suggestion from the case study is that a teaching practice allows clinical learners from all ranges of experience and backgrounds to engage with appropriate patient opportunities and share learning with peers and other professional colleagues. In Sunnybank, despite some concerns and exceptions, all these elements come together to offer an excellent example of a multi professional teaching practice. These elements include having adequate space and facilities for learning, administrative and management support for teaching and a practice culture which itself reflects a willingness to learn and develop.

Model 1 offers a diagrammatic representation of Sunnybank as a teaching practice, a a possible model for teaching practices in other primary care settings.

Model 1 Sunnybank: elements of being a teaching practice



6.7 Summary of findings

My research findings suggest that clinical learning occurs through ***engagement*** and ***opportunity.*** The process of ***engagement*** can be broken down in to a series of component parts which I have termed ***recognition, respect, relevance*** and ***emotion.*** ***Opportunity*** can be divided into ***authenticity***[9], ***relevance*** and ***immediacy*** in patient encounters, and stimulation and support from other clinical learners.

Model 2 (page 169) offers a diagrammatic representation of this theory through engagement and opportunity. This theory appears in my case study to be valid across different learner groups and different professions. It is supported by interview, observation and documentary findings, and triangulation from participant validation.

6.7.1 Engagement and its component parts

Learning appeared to occur through ***engagement*** with the practice. This was the core idea emerging from the data. It cut across learner and professional groups, even though there was little evidence from transient learners that they felt a sense of belonging to the practice nor a recognition of trajectory in learning. ***Engagement*** was made up of four component parts: ***recognition, respect, relevance*** *and* ***emotion.*** Some or all of these elements need to come together to allow engagement of the clinical learner with the learning environment. Engagement provides motivation to learn and allows learning to occur *if* certain other conditions are met. These conditions relate back to opportunity for meaningful patient encounters i.e. the availability, authenticity, relevance and immediacy of these encounters.

Recognition

[9] *Definitions: In this work I take authenticity to mean "real cases or patients". Patients may be real in a literal sense (not staged or simulated for the benefit of teaching) and real in the sense of having common problems which obviously affect the patients' lives in a way visible to the learners. Relevance suggests the patients seen have problems relevant to the learner's curriculum or trajectory of learning. Immediacy suggests the patients are presenting with new problems or new sequelae of existing problems, and are presenting fresh to the learners (not usually towards the end point of a process of triage or investigation).*

One main theme that arose across learner groups was that of recognition –including categories from being physically acknowledged, to being known by name, included (for example in social events) and being recognised as a valid part of a team.

Recognition developed rapidly even amongst transient learners, e.g. junior medical students who were present only for several short learning sessions. This seems to arise from feeling welcomed, a clear induction, and from the quality of encounter with their tutor. Being able to ask questions cemented the feeling of recognition. Whilst students and other learners may not belong, or feel it is important to be part of the team, they seemed to be stimulated to engage through being recognised. On a more expected note vocational learners (GPStRs, practice nurses and nurse practitioners on vocational schemes) felt a sense of involvement and belonging. Again they identified this and linked it to a positive feeling, and to learning.

Respect

One of the main themes across all learner groups was that of respect. It was identified from a range of categories including (for transient, vocational and nurse learners) time to learn, support for learning, organization of teaching, and quality of teaching but also amongst embedded learners across all clinical backgrounds.

One surprise from the data is that respect was an important finding even amongst transient learners, and appeared to be based more on earned respect from the quality of teaching and investment in teaching by the practice than from any idea of respect coming from authority. This respect was detected even where the relevance of teaching was disputed (e.g. fifth year students and opportunities for clinical learning). Transient learners appeared also to recognise and respect the lack of hierarchy within the practice (between clinicians, staff and between learner and tutor). Within vocational learners (both medical and nursing) respect arose from both investment in teaching by the practice and individuals, and from the close relationship with their tutors. Amongst nurses this respect was often for a medical

mentor or colleague, something that reflects the odd professional hierarchy and confused trajectory found particularly amongst nurse practitioner learners.

Relevance

Relevance refers to teaching being "pitched at the right level". This encouraged engagement through appreciation for the practice effort in acknowledging and following a curriculum but also as it made engagement and learning worthwhile. The practice was "teaching the right stuff".

Not all learners considered teaching to be relevant. Final year medical students questioned an over reliance on tutorial style teaching, regardless of its quality. They would prefer more patient contact and more responsibility. However, they were still engaged. Clearly not all the elements of my suggested model of learning need to be in place to stimulate engagement, but perhaps a majority of factors do and arguably *recognition* and *respect* are more important elements than *relevance*.

Emotion

The fourth element I identified I have called "emotion". This encompasses a wide variety of responses given, but one in which an emotional connection was the common element. This includes the shock of being challenged, the impact of exceeding expectations, the unexpected enthusiasm, energy and commitment of tutors and a sense of excellence.

In other practices or circumstances some or all of these elements may not be reproduced, but perhaps others would take their place – e.g. an unexpected or inspirational approach to teaching, a dramatic case. Normally challenge might not be viewed as an emotional trigger for learning, but it appeared to shake students from their comfort zone just as other inspirational teaching might.

6.7.2 Opportunity in clinical learning

Clinical learning does not occur only through the elements making up engagement. It also requires ***opportunity*** within the clinical learning environment for meaningful patient encounters, and these in turn depend on the ***availability***, ***authenticity***, ***relevance*** and ***immediacy*** of these encounters. Relevance and authenticity in clinical cases was sometimes seen in Sunnybank, at other times an absence of cases was suggested as a barrier to education. Clinical learning appears to be enhanced though the presence of other clinical learners, whether peers or those elsewhere on a trajectory of learning or with different professional backgrounds.

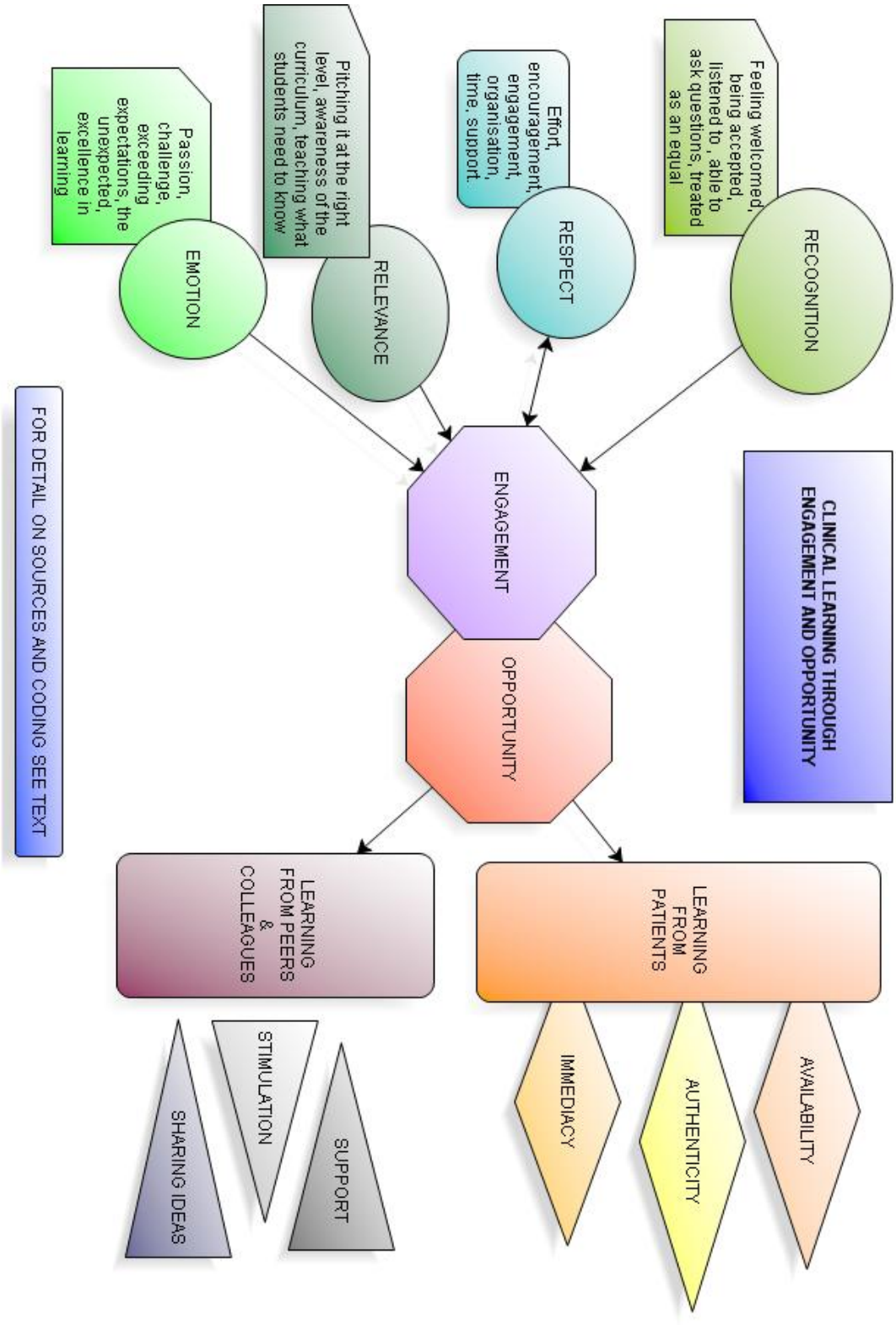
Patient encounters

Meaningful encounters with patients depended on ***availability, authenticity, relevance*** and ***immediacy. Availability*** includes having enough patients to see, and having enough time with patients. In some areas this was seen as a practice strength, in others a weakness (but both positive and negative findings help contribute to my theoretical framework). ***Authenticity*** was also important. All learners were affected by patient encounters. This appeared to be due to the social context of patient stories (real problems affecting real lives), and was especially true amongst transient learners although even embedded learners (e.g. experienced GPs) were at times amazed by new insights offered during patient encounters. These encounters were more valuable in learning where their ***relevance*** was obvious (perhaps self evident in vocational or embedded learners, but important for transient learners in terms of their curriculum or career trajectory). Finally the emotional impact of patient encounters appeared greater for transient and vocational learners due to the ***immediacy*** of the stories: the fact these were unrehearsed stories in patients who often hadn't had multiple clinical encounters or investigations (in contrast to more dramatic presentations in hospital which may lose immediacy through retelling).

Learning from peers and other professional colleagues

All clinical learners placed great importance in the availability of support, advice and expertise from both their peers and from others involved with learning. This appeared to enhance learning and was quite separate from the essential support gained from formal tutors or supervisors. Perhaps surprisingly transient learners appeared less involved with this peer learning than other groups (evidenced both via interview findings and observations). This may be a failing of the practice, of the learning architecture in the practice, or an immaturity or hesitancy amongst early learners themselves. By contrast the concept of informal learning from colleagues was strongest amongst embedded experienced learners, both medical and nursing.

Model 2 Engagement and opportunity: a model of clinical learning



Chapter 7
Discussion

My research investigated two questions:

- How does clinical learning occur in a primary care teaching practice?
- What is the nature of a primary care teaching practice?

This case study offers answers to both questions. In Chapter 7 I consider first the trustworthiness of my research, and then explore how the answers obtained contribute to the literature on clinical learning, especially the ideas of social learning and communities of practice which form the theoretical framework for this research. I conclude by considering the relevance and utility of the findings and make suggestions for further study.

7.1 Trustworthiness of the research findings

The theoretical and practical considerations regarding the collection and analysis of data were outlined in Chapter 4, and included a theoretical discussion of trustworthiness in case study research. How trustworthy are the findings which emerged from my data?

Trustworthiness was enhanced through having a clear and transparent approach to all areas of the research from the sampling strategy, to data collection and data analysis.

Dependability, credibility and confirmability were enhanced through use of an independent interpreter in relevant interviews, and the transcription and independent coding of all interview data. Care was taken to fully understand the data, and allow ideas from it to emerge during data analysis. CAQDAS allowed the handling of large amounts of data in an efficient and transparent manner (Ezzy, 2002). Emergent ideas from the interview data were developed into categories, but also developed into theory using models. This allowed ideas to emerge from the range of opinions within

the interviews, and was a valuable adjunct within data analysis. Independent coding and peer debriefing helped challenge the author's assumptions about meaning and protected against this being a purely personal interpretation.

Dependability and credibility were further enhanced through triangulation with observational data and documents relating to learning; and through peer discussion and respondent validation. Findings were presented back to participants in July 2009, and a further presentation is planned for November 2009. Individual transcripts were offered to all participants, although most declined.

There were many things which could (with hindsight or more resources) have helped enhance the trustworthiness of findings. Dependability could be enhanced by formal independent coding of interview data and coding comparison using Cronbach's Alpha or similar techniques to measure concordance. It may also be enhanced through a better balance between interviews, observation and documents. Interviews were valuable as participants had an opportunity to share ideas in a safe environment. This may be important to allow ideas to emerge, especially if participants challenge a consensus view.

Observational data and documents could have been formally analysed to improve dependability and credibility, and better balance the case study. The credibility and transferability of results could be explored by repeating the research in different practices. The trustworthiness of the research will also be enhanced if it is considered relevant and useful in other practices (transferability and applicability).

One possible concern on reading the findings may be the frequent use of examples (mainly negative) from hospital learning to reinforce the (mainly positive) opinion of the practice learning environment. This could be considered an example of research bias, given my background. These findings are presented as the opinions raised were offered spontaneously and frequently across medical student, GP specialist registrar and nurse interviews with both myself and BL as the interviewer. The opinions might

reflect what participants perceived the interviewer wanted to hear, given the nature of the environment and case study although care was taken to ask neutral questions.

7.2 Clinical learning through engagement

My research findings have suggested a new theory to explain how clinical learning occurs in one teaching practice in the UK. How original are the ideas I have presented? How useful is the theory in the context of clinical learning in the UK?

My main conclusion is that clinical learning occurs through meaningful engagement with relevant clinical cases, and that this may occur in the context of a teaching practice (and its culture of support and stimulation for learning). My findings suggest that meaningful engagement needs both engagement (which in turn arises from four elements: recognition, respect, relevance and emotion) and opportunity (both in terms of relevant clinical cases, but also the opportunity to interact with tutors, peers and other professional colleagues). How does this idea link with existing theories of adult learning, or the literature on clinical learning?

7.2.1 Engagement and its component parts

From Dewey onwards educators have suggested *meaningful engagement* is essential for learning (Hildebrand, 2008, Kolb, 1984, Rogers, 1967, Schon, 1983). My research findings reinforce the idea that active learning encourages engagement ahead of passive learning (Kolb, 1984) and that experiences are meaningful where they are directly relevant to the context of the learner (e.g. Baxter Magolda, 1999, Mezirow, 1991). The findings overlap with ideas from Lave and Wenger on legitimate peripheral participation and communities of practice (I return to those areas in the discussion of social learning) (Lave and Wenger, 1991, Wenger, 1998).

I suggest engagement comes from *recognition, respect, relevance and emotion*. How does this fit with existing literature?

Engagement and recognition

Clinical learners at all levels appreciated being recognised. This included literal recognition (being known by name, having own room/space), being recognised as a person not a student (social as well as work conversation), and being recognised as a valuable member of the clinical team (vocational learners, embedded learners).

Maslow (1970) suggested that where learners feel comfortable, and being "recognised" is part of this, they are able to progress onto the next level of engagement and learning. Rogers (1967) discussed the need for acceptance of who the learner is to allow the freedom for learning. Recognition suggests 'validating the student' (Baxter Magolda, 1999), and 'teaching responsively' (Brookfield, 1980). Cranton (1994) considered the need for teachers to be responsive to their students' needs, one meaning of the concept of authenticity in teaching and similar to Splitter's ideas of "seeing oneself as one amongst others" (Splitter, 2008 p. 147).

In work on identity development and student culture both Melia (1987) and Becker *et al* (1961) suggested there was an advantage in short transient placements through "not being part of the team". Anonymity allowed students to get on with their formal curriculum, and to "get through". Perhaps recognition should not be expected to be a good thing. This viewpoint wasn't replicated in my study, where students appeared to greatly value being recognised even if they acknowledged they weren't part of the team.

My findings suggest simple steps to welcome and recognise learners are rewarded through engagement, and are strongly echoed in the educational literature. This suggestion also is supported by Fuller and Unwin's ideas of learning in 'expansive' workplace learning environments (Fuller and Unwin, 2003), and by Boor and colleagues work within clinical (hospital) environments in Holland where 'expansive' workplace environments included those where students felt wanted, involved and were allowed to participate (Boor et al., 2008). Dornan and colleagues

in Manchester hospitals also found medical students who were not ‘recognised’ felt disengaged and less inclined to participate (Dornan et al., 2007).

Engagement and respect

Engagement was achieved rapidly, even in transient learners. This appeared to arise from the respect shown to tutors and the practice. In turn this arose from an appreciation of high quality clinical teaching, the supportive practice, and through witnessing respect being modelled within doctor-patient and clinician-clinician and clinician-staff relationships. Respect may be hard to distinguish from culture (considered later) but appeared to be modelled through individual interactions and was a powerful driver of engagement, belonging and learning.

Respect and recognition are similar concepts. I have suggested that recognition suggests valuing the viewpoints of learners (e.g Baxter Magolda, 1999), whereas respect is perhaps something deeper (a respect of student for the tutor and practice, but equally respect amongst clinicians, between clinicians and patients, and for learners from their tutors at all levels).

To allow transformative learning educators need to maximise experiential learning, but also engage closely with learners more as equals than is traditional in many teaching settings (Cranton, 1994, Mezirow, 1991). Cranton suggested educators might need to minimise the personal power arising from their position, for example as clinicians (Cranton, 1994). My findings (from interviews and observation) suggest that for all learners GP and nurse tutors at Sunnybank have embraced (presumably unknowingly) this concept of equality (which I suggest is a part of respect). I suggested in the literature review various reasons as to why this might be the case: including the nature of patients and patient encounters in primary care, clinician-patient relationships, and the voluntary nature of teaching in this setting. My findings strongly endorse the suggestion that this approach encourages engagement and learning.

Whilst there are very few studies in the literature on nurse placements one review concluded that nurses valued a close mentoring relationship and 'being respected' (Gopee et al., 2004). Dornan and colleagues didn't use the word 'respect', but noted that medical students became de-motivated where doctors failed to turn up for teaching, cancelled teaching or allowed teaching to be interrupted (Dornan et al., 2007). My findings add to those from Dolmans and colleagues in a hospital study where they showed that students' learning was adversely affected by poor organisation, negative staff attitudes and insufficient supervision (Dolmans et al., 2008). All of these, I suggest, could be considered a lack of respect for the learners.
Whilst I suggest respect can be rapidly established and it enhances engagement and so learning: others have suggested that longitudinal placements allow a build up of trust over time, greater student autonomy and active learning (Fernald et al., 2001). Perhaps building respect in short placements is possible, but that the respect and trust seen in longer attachments to practice, witnessed in this study with vocational learners, allows more meaningful or transformative learning?

Respect in the educator-learner relationship may lead to engagement and learning. In addition, if respect is observed between professional groups and between clinician and patient it will help model positive inter professional behaviour and encourage a closer partnership with patients. Both are important goals of government and clinical professions (Department of Health, 2006, Department of Health, 2008, General Medical Council, 2009, RCGP, 2009). Those responsible for educational placements might reasonably attempt to choose practices with mature respectful relationships amongst staff and with patients. This is hard to measure, and interestingly neither this nor the quality of the clinical environment was mentioned in a recent major review of quality criteria in undergraduate medical education (Cotton et al., 2009).

Engagement and relevance

My findings suggested that learners were appreciative of the care taken to ensure relevance in learning and the effort to match the needs of learners to the requirements of the curriculum. This may help engagement for several reasons ranging from an

appreciation of the respect it suggests to learners to the practical expediency of ensuring activity is in context and not "wasted effort".

My findings reinforce ideas from Dewey (Hildebrand, 2008) and Rogers (1967). Rogers emphasised that significant learning would occur where the experiences provided to learners were closely linked to the context of their journey, i.e. relevant (Rogers, 1967). Dewey suggested that meaningful experiences would provide continuity (build on previous experiences) and interaction (between learner and environment) (Hildebrand, 2008). Learners at Sunnybank were engaged because clinical cases were 'relevant': with patients relevant to their trajectory of learning, often via cases sought specifically by the practice to illustrate learning points.

In a clinical context Baxter Magolda (1999) suggested meaningful learning arises from being based within the learners' own lived experiences, and that these experiences need to be real and relevant. Benner (1984) noted that the gap between the taught educational curriculum and learned theory should be aligned with experiences, i.e. experiences should be relevant to the learners' needs.

These ideas from theory and practice translate into a whole literature on learning needs and the importance in teaching of matching learners' needs and curriculum. Although perhaps self evident, in my experience this is often neglected in clinical learning. Several studies within primary care show that such matching is appreciated where it does happen (Gormley and Collins, 2007, Lucas and Pearson, 2005, Oswald et al., 2001, Silverstone et al., 2001, Worley et al., 2004).

Engagement and emotion

My findings suggest that engagement may occur or be enhanced through educational encounters which trigger emotion (e.g. exceeding expectations, encounters with patients, challenge, commitment form tutors, going the extra mile etc). These findings support previous work in adult learning that show how emotional reaction is central to engagement with experiences, and to learning (Boud et al., 1985, Boud and

Miller, 1996). My work suggests that the emotion arising from learner-teacher encounters, specifically challenge, is a key trigger for learning. This is a finding previously noted in texts on adult learning (Brookfield, 1980), and is a central part of transformative learning (Cranton, 1994, Mezirow, 1991).

These findings are new in the primary care literature in that they specifically link learning to emotion, though undergraduate and postgraduate medical learners have previously commented favourably about the same underlying factors being a stimulus to learning e.g. challenge (Fernald et al., 2001, Smith and Wiener-Ogilvie, 2009) and enthusiasm and commitment (Lucas and Pearson, 2005, Mulrooney, 2005). My findings reinforce this previous work, but also add to it through a theory of learning which links emotion to other facets of engagement.

7.2.2 Engagement in a clinical context

I suggest that engagement arises from recognition, respect, relevance and emotion. This theory of learning in a clinical setting has clear resonance with the literature on adult learning, and learning in a clinical context. It offers new evidence in a primary care context for the importance of engagement and its components parts, and a theory of clinical learning which might be useful for clinical tutors and educationalists.

What is clear from my research but perhaps not captured above is the mutuality of learning in the case study: the sense of equality in relationships which appeared to translate into mutually beneficial learning relationships, whether within peer groups, across professional groups, or between tutors and learners. Indeed the experienced clinical tutors felt that learning was both stimulated and supported by their involvement with teaching. This finding underscores the suggestion that learners and educators should learn together and learning be understood as ‘mutually constructing meaning’ (Baxter Magolda, 1999).

The suggestion from my research is that clinical learning occurs best, at all levels, from meaningful engagement: from patient contact, from challenge and taking responsibility and from feeling involved with a clinical team. This may not require an obvious trajectory of clinical training, but findings from vocational and embedded learners suggest that a sense of belonging, role modelling and identity development certainly strengthens learning. These findings are consistent with educational theory, emphasising the importance of relevant experience in the context of the learner (e.g. Baxter Magolda, 1999, Kolb, 1984) and research in clinical areas emphasising that students learn from clinical cases in a supportive environment (Dornan et al., 2007, Sheehan et al., 2005, Teunissen et al., 2007).

Dornan's work is particularly relevant as it shows (albeit for medical students, and in a hospital context) that challenge was an important component of experience based learning (provided it was appropriate to their level of experience and made in a supportive way). Dornan's findings very much are supported by my own, and are replicated across all professional groups and a wider range of student learners. Dornan raises concerns that increased student numbers may reduce the opportunity for the supported participation which appears crucial for high quality learning in the clinical environment (Dornan et al., 2007). My own study would support that, not through negative findings in the practice but mainly through student comments regarding negative experiences relating to unsupported placements in some hospital environments.

Taking responsibility may be an important part of stimulating learning through engagement. Work from Ireland amongst medical interns (junior doctors) suggests that responsibility for patients was far greater in the GP environment and this was felt to be an important motivator for learning (perhaps because the environment was also considered safe and supportive) (Cantillon et al., 2008). There is a move in medical education towards a return to experiential learning and apprenticeship (General Medical Council, 2009, Tooke et al., 2008). Tooke suggested an extended five year training period in general practice to allow a clearer apprenticeship model with supervised training (Tooke et al., 2008). These developments suggest a return to

prominence for experiential learning (with increased responsibility, engagement, and workplace based learning). One difficulty in pursuing these changes will be in asking transient and vocational learners to take increasing responsibility against a socio-cultural environment moving in the opposite direction (e.g. increased supervision, rising litigation in healthcare, reduced working hours).

There is a clash of pedagogies in clinical education. On the one hand a desire to embrace an "adult learning model" including ideas of reflection, self directed learning, portfolio based education and a return to clinical apprenticeships. On the other, in medicine at least, a move towards structured competency based assessment (MCQs, MEQs, and OSCEs) in an attempt to standardise assessment processes, and towards centralised national assessment criteria.

The apprenticeship model is under threat from these moves towards standardised external assessment, and the associated diminution of the role of workplace based undergraduate tutors, and foundation year and GP trainers. My research findings suggest a return to apprenticeship within clinical learning would increase satisfaction with teaching and training and better engage learners; always assuming suitable high quality clinical placements can be found. Sunnybank has invested heavily in education, as witnessed by the high staff-patient ratios (well above national averages). The development of similarly supportive teaching practices may require considerable additional investment.

Much of this research and associated discussion has centred on medical education. This is inevitable given the numbers of medical learners involved (at Sunnybank and nationally) and the fact that the publication of new curricula documents has rekindled a vigorous debate regarding the direction of medical education (General Medical Council, 2009, RCGP, 2007, Tooke et al., 2008). The implications of my findings for learning in other professions, and across professions, are considered later.

7.3 Clinical learning in the context of social learning theory

Social learning theory suggests that learning occurs through meaningful participation in activity related to the context of learning and as part of a trajectory of developing personal or professional identity. How do the findings, and the theory of clinical learning I propose, fit with these ideas?

The case study has suggested clinical learning to be stimulated by interaction between peers at various levels (medical students to a small extent, registrars to a greater extent, and experienced clinicians in both medical and nursing to a great extent). Learning occurs as much through informal discussion ("learning in the corridor") as through formal settings. Learning is stimulated by a sense of being part of the practice, through belonging, and from engagement due to recognition, respect, relevance and emotion. The overall impression is of dynamic social interaction at the heart of learning, strongly linking with Vygotsky's premise that social learning occurs through interaction, dialogue and mutual development (Vygotsky, 1978).

7.3.1 Communities of practice and legitimate peripheral participation

Lave and Wenger's ideas of learning differed from previous social learning theory in the importance placed on trajectory, the suggestion that learning occurs as a part of a journey from peripheral participation to a more central role (Lave and Wenger, 1991). Wenger (1998) developed these ideas to suggest learning occurs not only through legitimate peripheral participation but within communities of practice.

The idea of negotiating meaning, developing identity and being within a trajectory of learning are all key elements in the theory of learning within communities of practice (Wenger, 1998). All elements were present in some of the clinical learners interviewed and observed at Sunnybank. The vocational learners especially had a real sense of belonging, a clear sense of building an identity, and a clear trajectory (of learning and of career). This was less clear with transient learners, but seen mostly within those individual learners on fourth year placements. The sense of

learning within a community of practice was also strong amongst embedded learners, both through belonging and for some within a career trajectory (though the findings and communities of practice differed between nurse and medical learners).

Where the concept of community of practice was discussed during interviews, or findings were fed back to clinical learners, there was wide agreement that it provided a plausible explanation for how learning occurred.

Engagement and belonging

A dictionary definition of engagement would include the ideas of promise; appointment; employment; commitment; a fight or battle (Chambers Dictionary). Engagement in these terms suggests a clear involvement with the practice, and the work of being a clinician. Belonging implies a greater involvement such as being part of the practice, being a member of the practice, being connected to the practice.

In my analysis there seems to be a clear distinction between the two concepts. Medical students may feel engaged in meaningful activity, whether or not they feel any sense of belonging. GPStRs are engaged with learning, but also identify far more closely with the practice team and have a clear sense of belonging to the practice.

Medical students are transient learners. They are "just passing through", but despite this they become engaged and motivated to learn. I suggest the feeling of being welcomed, valued and respected allows this engagement and meaningful learning even where students do not feel part of the team or the practice. Engagement may arise at a simple level from active learning and involvement (rather than belonging in any professional sense). This suggestion fits with the observations reported by Dornan and colleagues (2007) that participation occurred in short term placements (in hospital) provided there was involvement and challenge. This is also consistent with Fernald and colleagues (2001) finding that students valued active teaching and challenge, something enhanced through longitudinal placements where they developed close relationships with their tutors. Learning experiences were

meaningful to transient learners where they involved powerful interactions with patients (emotion, drama, complexity) or real involvement through skilled teaching and active learning.

Developing identity, role modelling and trajectory

An important part of the ideas of communities of practice is that of negotiating meaning, developing identity and trajectory in learning. Are we motivated to learn through a sense of direction of travel, something that has logic within a clinical profession?

Transient learners didn't always feel part of the team, nor did they consider their placements helped develop their professional identity either as doctors or as GPs (although 50% of medical students are likely to become GPs in the future). This was true even for final year students who may be viewed as apprentices (and are certainly considered so in recent recommendations for undergraduate student education (e.g. General Medical Council, 2009, Tooke et al., 2008). Perhaps medical students are too early in their career to consider abstract terms such as "identity".

Transient learners did not recognise themselves as being on a trajectory of learning, nor did they feel they were "legitimately participating" (rather they were peripheral observers in practice, especially those on group placements who were less engaged). I suggest that their learning was still occurring through engagement, but stimulated by recognition, respect and relevance (not through legitimacy). This observation supports previous criticism of Lave and Wenger for ignoring transient learners (Trowler, 2008).

These findings relating to transient learners contrasts with those from vocational and embedded learners who strongly felt a sense of developing identity. Clinical learning amongst GPStRs appears to fit very well with Lave and Wenger's theory of learning. They are employed and participating. They contribute. They are valued as workers as well as learners. They are valued for their knowledge (for example from previous

hospital experience). They are on a trajectory of learning, and might reasonably make up the future workforce within their community of practice (as five current GPs at Sunnybank would attest to).

Two aspects of learning at Sunnybank helped reinforce the sense of trajectory:

One is the presence of medical students across different years and of learners within a single profession spanning a whole career. This continuum (for doctors at least) had learners and teachers at various points: junior and senior students, junior and senior vocational GP learners, junior salaried doctors, junior and senior GP partners. The spread within nursing was similar, albeit less clear in terms of training (mirroring the national picture). This range of learners helps students, GPStRs or their nursing equivalents to recognise their place in a continuum of professional development. My findings suggest Sunnybank has uni-professional communities of practice and that learning occurs within them. Whether the potential for learning in these communities is maximised is a question to which I return later. This finding appears new for the clinical literature. It offers a previously unrecognised advantage of mixing medical students and GPStR learning; and a possible advantage of having vocational and embedded learners at different levels of experience (e.g. junior and senior GPStRs; salaried doctors and partners; nurse trainees and nurse practitioner registrars).

The second is the presence at Sunnybank of peers to learn alongside. Much of learning appeared to be triggered or supported by peers. They offered support, they provided a benchmark for progress and they stimulated learning (through competition and standard setting). Peers in this context might be direct peers (same year medical students, fellow health care assistants) or more likely those with similar experience (other GPStRs, senior GPStRs and junior salaried GPs). Peers may be an essential part of building a community of practice in a teaching practice. This finding is supported by work with GP specialist registrars discussed in more depth later (Buchanan and Lane, 2008).

What of embedded learners e.g. established clinicians? Lave and Wenger perhaps overemphasise the importance of trajectory, and do not explain how learning occurs amongst experienced and lifelong learners (Fuller et al., 2005). It is hard to consider these clinicians are on a trajectory of learning, yet they are clearly learning (mainly through patient encounters, especially where stimulated by interaction with peers or learners). My findings suggest engagement can occur without trajectory but instead through a sense of belonging, and respect. Perhaps established clinicians are on a trajectory of a different nature, not one of career development but more a journey of developing a high quality service. Perhaps that is the strength of the small scale partnership nature of UK general practice, one which Sunnybank epitomises? The fact that many Sunnybank clinicians who are involved with education have been through an apprenticeship either at Leeds University, at Sunnybank or both, may give them a commitment both to learn and to pass on knowledge and experience.

Amongst nurse learners these concepts of developing identity, role modelling and learning within a trajectory were more confused. There is no obvious career progression in general practice nursing; hence the concept of identity is vague. This may influence ideas of engagement, belonging and trajectory.

Nurse role models may be medical rather than nursing e.g. nurse practitioners may have a GP mentor; at Sunnybank nurse practitioners were invited to GP educational meetings unlike their practice nurses colleagues; nurse practitioners don't wear uniforms, practice nurses do. There is some shared professional identity within the nurse team at Sunnybank, and a sense of a nursing community of practice with a trajectory from health care assistant to practice nurse, and possibly to practice nurse specialist and nurse practitioner. This appears to be a unique strength of Sunnybank arising from its large and confident nurse team and presence of nurses in training at various levels. It is perhaps less a product of professional career pathways or an educational support network outside the practice.

Chapter 7

Communities of practice and inter-professional learning

One feature to emerge from my research was the natural tendency of professionals to gain support first from their professional colleagues, and second from members of other professions. There was no sense that inter-professional learning was widely embraced despite an obvious respect across professional groups. It would appear that communities of practice occur first within professional groups and follow the trajectory of career paths (medical students; specialist registrars; salaried doctors; partners; or HCAs, practice nurses, nurse practitioners, community matrons).

Does this finding matter? Efforts to encourage inter-professional learning might falter without an awareness of these intrinsic boundaries. If trajectory and professional identity is important for legitimate peripheral participation and learning within a community of practice then perhaps we should encourage and embrace uni-professional vertical learning and not challenge it. Having more teaching practices with a full vertical thread of uni-professional learners from novice to expert might encourage learning and strengthen the future of the profession involved. The advantages of this are likely to outweigh the dangers of professional isolation.

The opportunity for vertical integration of teaching and learning in UK primary care is a new one. Only recently have a variety of year groups of student accessed practices; only recently have foundation year posts occurred in general practice; only recently have salaried GPs emerged. Out of these changes arise new opportunities to strengthen learning and build vibrant communities of practice. In nursing similar opportunities occur with new undergraduate nurse placements in primary care, new training for postgraduate practice nurses, and new hierarchies within established community nurses. The future environment for clinical learning in general practice may be changing rapidly, but might be very healthy.

7.3.2 Beyond communities of practice

Social learning theory has developed beyond the ideas of community of practice, with critics suggesting external factors including ideas of culture, politics and power need integrating into the theory (Evans et al., 2006, Hodkinson et al., 2007, Hodkinson et al., 2008).

At an organisational level the importance of a supportive infrastructure and learning culture appears from my findings to be crucial for various reasons; in helping engagement with learning, providing the clinical encounters for learning to occur and the space for the individual interactions which motivate and drive learning. At Sunnybank, as Hodkinson and colleagues suggested, this organisation culture does appear as important as the communities of practice where learning occurs, and indeed crucial in allowing their development (Hodkinson et al., 2007, Hodkinson et al., 2008). It appears that the small personal and horizontal nature of organisational structure in teaching practices such as Sunnybank is likely to lend itself to allowing a personal, approachable and non hierarchical organisational culture to support learning. Equally at Sunnybank, as with most teaching practices, it is medical professionals who are the owners of the business, and this perhaps accentuates the professional boundaries apparent within learning.

Evans et al (2006) suggested Lave and Wenger neglected the importance of core curriculum and institutional demands in stimulating teaching. Certainly amongst both transient and, to a lesser extent, vocational learners these were important sources of motivation (especially with groups of undergraduate learners). Despite the strength of the formal curriculum and external assessment engagement with learning seemed overwhelmingly to occur from the elements I have discussed (especially in vocational learners). The power of clinical cases, peer interaction and supportive teachers to motivate and support learning was strong (in an echo of work in similar clinical contexts by Dornan et al., 2007, Sheehan et al., 2005, Teunissen et al., 2007).

What of the professional and policy influences on social learning? My findings reveal a huge difference between medical and nurse learning (numbers of learners, support, career trajectory, funding). These arise from macro organisational factors, not from differing practice priorities. These influences were not specifically explored within the context of my research, but their impact on learners was obvious. Changes in the macro organisational culture; such as curricula, supervision, assessment, length of training, and to the clinical professions themselves will be as profound in their influence to future learning in practices as the learning culture within individual teaching practices (Hodkinson et al., 2007, Hodkinson et al., 2008). Despite this the process of how learning takes place appeared remarkably consistent across a spectrum of learners and professionals within my case study. Perhaps the influence of external factors is made apparent via the learning environment in a teaching practice and its micro-organisational culture, rather than through any direct impact on learners. Perhaps these external factors influence the sense of engagement, belonging and trajectory which Lave and Wenger suggest create the potential for learning to occur (Lave and Wenger, 1991, Wenger, 1998).

7.3.3 Communities of practice in clinical education.

I describe learning within a stable, long standing, community-orientated, traditional practice. How relevant is this to models of primary care provision with more nurse practitioners, and more salaried GPs? How relevant is it where ownership moves from the partners to business, consortia and private companies? How will that affect communities of practice, apprenticeships, teaching and learning regimes?

My findings are relevant within the case study practice, and I would argue of both theoretical interest and likely to be transferable to similar practices. UK primary care and general practice is changing, as I discussed earlier. In the last five years established realities of personal lists, continuity, GP ownership of practices, 24 hour responsibility have all been challenged or removed. In five more years it appears likely salaried doctors will exceed partners, the work force will be increasingly feminised and dominated by part time working, practices may be within government

owned health centres, multi-professional teams will be the norm. These changes will have an impact on how clinical learning occurs. All will challenge the future applicability of my findings.

At Sunnybank I have described a culture of learning within mainly uni-professional communities of practice supported within a clear professional and practice trajectory (Key educators and practice leaders are Leeds graduates, most are ex Sunnybank registrars, some HCAs and nurses were previously patients or staff at the practice).
I would argue that the professional trajectory may develop further, strengthened by the possibly of repeat placements at single practices across nurse training or across medical student, foundation year and extended GP training. This will require an acceptance by those responsible for education of the value of engagement within a single workplace and of the apprenticeship model of learning.

The converse to this positive view is that if GP practices become management led and there is less clinical cohesion (reflecting the current trend and that seen within hospitals) then perhaps my research findings will become less relevant as any sense of shared practice history, belonging and trajectory may be diminished or lost. This is a great danger at a time when more high quality educational placements are needed in primary care, and in the context of a return to apprenticeship models of learning.

7.4 Learning from patients and peers

7.4.1 Learning from patients, learning with patients

Clinical learners across the spectrum saw patient encounters as their most significant motivation for learning. Motivation to learn comes from both the impact of meaningful patient encounters (including relevance) and the other elements already mentioned that make up engagement (respect, recognition, emotion). Motivation appears to be frequently triggered by a patient encounter in a context where it is out with the normal (in terms of how patients present, how teaching occurs or the relationship between tutor and student).

Availability of patients

For transient learners motivation for learning occurs through engagement with the learning environment and meaningful patient encounters within that environment. Providing sufficient patient encounters for transient learners can be a challenge, and one reason clinical learning has moved into a primary care setting (El-Bagir and Ahmed, 2002). Transient learners at Sunnybank suggested sufficient patients were not always seen, and at times learning was too theoretical or tutorial based. A similar criticism has been made of primary care teaching previously (Lucas and Pearson, 2005), though in other studies primary care students considered they got more patient contact (Worley et al., 2004).

For vocational learners lack of patient contact may also be a consideration but this may relate more to increased structure and supervision in vocational learning and to policy changes such as the impact of the European working time directive and hours of training.

For embedded learners, clinical encounters are obviously frequent and remain profound in their capacity to inspire learning. This study has shown that reflection on these cases can be stimulated by the presence of learners, by contact and conversation with peers, and through formal opportunities such as those within protected study time at Sunnybank. Clinical learning from interesting or difficult cases will not happen by chance if the right environment to learn from experience is not provided. The clinical learning environment at Sunnybank was considered highly supportive of personal and professional learning and development, often in contrast to those encountered elsewhere or experienced by colleagues.

Authenticity in patient encounters

The case study suggested that transient learners particularly were motivated to learn from patients due to the ‘authenticity’ of cases and the immediacy of patient stories. I

use the term ‘authenticity’ here to mean ‘reality’: having encounters with patients with common, accessible and important problems presenting in an environment where the social context of the illness and its impact on the patient is obvious (in contrast, perhaps, to patients in hospital who may have rare conditions, or conditions less obviously visible in terms of an impact on their lives). This idea of ‘authenticity’ is perhaps reinforced by the very ordinariness of stories in this setting, less dramatic than in hospital but more real. This perhaps reinforces learning by minimising the gap between prior experience, theory and current experience (see for example Baxter Magolda, 1999, Benner, 1984, Wenger, 1998).

Linking clinical learning linked to a patient’s social and environmental background is an important goal of the undergraduate medical curriculum (General Medical Council, 2009). Even embedded experienced learners in this study were moved by the strength of patient stories and the impact of illness on their lives, and this was considered a major trigger to learning. The stimulus of having a clinical learner present often enhanced this learning.

Immediacy and patient encounters

A more significant finding may be the idea from transient learners that they are stimulated to learn from the *immediacy* of patient encounters in primary care. It was my previous viewpoint that primary care patients had less dramatic tales to tell than hospital patients and because of this less likelihood to trigger learning. My findings suggest the opposite. The very immediacy of tales in primary care (“getting the story first”) makes them memorable, whereas hospital stories may be profound but so often repeated that they are forgettable. As in much of learning the context becomes more important than content. This is an important finding, of great relevance as primary care teaching is expanded, and one which merits further exploration.

Much clinical learning is stimulated by patients. Patients appeared to be highly respected in the practice, and were fully informed of their involvement in clinical learning (and given opportunities to decline which were sometimes taken). One finding which surprised me was the lack of patient participation in educational planning or delivery (with the exceptions of a very few patients in expert patient development projects). The clear respect for patient views wasn't extended to their greater participation in practice life.

Primary care policy is to move to a greater role for patients at all levels of care (Department of Health, 2006). One suggestion from this literature is that patient engagement with clinical education would be best served through developing partnerships with practices. I have planned further research to explore the views of Sunnybank patients toward their involvement in education. Others have done similar work with undergraduate learners (Benson et al., 2005, Haffling and Hakansson, 2008). They demonstrated a willingness of patients to participate, and some evidence of empowerment through this process. Patients in Benson's study indicated they expected greater control over student presence during consultations compared to hospital settings, reinforcing my findings from transient and vocational learners who noted the mutual respect within patient encounters in this primary care setting.

7.4.2 Learning from peers and professional colleagues

Education in primary care teaching practices until ten years ago mainly involved individual GP specialist registrars undergoing vocational training supported by a single GP trainer, or individual medical students learning about general practice from one of more GP tutors. The expansion in medical student and postgraduate medical training, new opportunities from foundation year medical training and new undergraduate and postgraduate nursing placements means that the clinical learning environment in primary care is changing rapidly. Potential advantages of this are the possibility of vertical integration of teaching (learning from professional colleagues

at a different point of their career), increased opportunities for peer learning and inter professional learning.

Findings from this case study research suggest these opportunities will be welcomed by learners across a spectrum of experience and background. All learners in this study appeared to value the support, stimulation and opportunity to share learning with colleagues. Amongst postgraduate GP learners it has been suggested such learners are more approachable and supportive, and that peer learning stimulates a positive practice learning environment (Buchanan and Lane, 2008). Vertical integration of learning is a common feature of UK medical training in hospitals. In Australia this vertical integration of teaching and learning has been suggested in general practice both as a solution to address a shortage of practice based supervisors, and also to enhance the learning experience of medical students (Dick et al., 2007). Dick and colleagues' work was based on an earlier case study which suggested potential advantages of vertical integration in this setting: including enhancement of the learning environment, a greater collegiality between more junior learners, and increased expertise and satisfaction of teachers through involvement in a continuum of the educational process (Glasgow and Trumble, 2003).

Whilst having a greater range and number of clinical learners bring the theoretical advantages outlined above, the more negative view would be potential loss of the one-one supervision in placements at undergraduate and postgraduate level: something which is strongly valued amongst GP registrars, tutors and undergraduate learners (Mulrooney, 2005, Smith and Wiener-Ogilvie, 2009). If learner numbers increase the advantages individual placements provide (close supervision, support and role modelling) might be diluted or disappear. Where vertical integration of learning fails students feel unsupported, teaching is disorganised and clinical learning suffers. This was noted throughout this research with negative reference to teaching within hospital placements, and from the literature (e.g. Lucas and Pearson, 2005, Worley et al., 2004). Increasing learner numbers in teaching practices has potential educational benefits, many seen in my case study, but also potential negative consequences if a supportive learning community is not sustained.

Whilst this study highlights a preference to learn with and from colleagues I do not make any claim that this provides more effective education. There is no doubt, however, that learners in this study felt that the opportunity for vertical integration of teaching, peer learning and other professionals helped provide stimulation to learn, support, challenge and a conducive learning environment.

7.5 Reflection in learning

Reflection on experience is a key component in professional learning. Whilst this is reflected very clearly from the GPStR interviews, it was noticeably less evident within medical student interviews (and was discussed very differently within nurse interviews). Perhaps experiences need to be meaningful for reflective learning to occur, and meaning perhaps comes from both relevance and responsibility. All clinical learners accepted the value of reflection, but to nurse learners this appeared to be a formal structured process essential to clinical learning. By contrast medical students were somewhat dismissive about its importance, vocational medical learners committed to it (via their externally imposed portfolio), and established GPs accepted it as something that happened all the time.

Medical students considered learning to be of high quality and highly structured – especially where group teaching occurred in early years and final year placements. I suggest that one danger of Sunnybank's highly organised approach is that at times the potential for informal interaction between learners is overlooked, and the important theoretical advantage of having multiple clinical learners together in one practice is lost. This might negatively impact on the development of reflection in learning, and the encouragement of informal learning from patients and peers.

The formal external imposition of a reflective portfolio perhaps stifles a real feel for the professional concept of reflection on action and the more subtle skill of reflection in action (Schon, 1983). Nurses have arguably gone down this route, with reflective

practice so embedded into formal supervision arrangements that they become highly structured and perhaps less conducive to professional clinical learning.

7.6 On being a teaching practice

There are 8230 GP practices in the UK. An estimated 40% are teaching practices. The figure is likely to rise steeply as clinical placements across primary care continue to expand. I have commented on some literature relating to undergraduate and postgraduate medical teaching and training practices. Published work offers a perspective on the clinical learning environment, and is generally favourable particularly of the informality, friendly approachable and supportive staff and the close one to one relationships with tutors or trainers (Grant and Robling, 2006, Mulrooney, 2005, Smith, 2004, Smith and Wiener-Ogilvie, 2009).

The findings from this case study add weight to the idea that primary care teaching practices offer an approachable, friendly, supportive environment. This case study shows these positive features in the learning environment may be present in one practice across a variety of learners, and across professions.

The findings go beyond the existing literature to offer a more in depth analysis of what lies behind the supportive culture mentioned in other reflections on learning environment and climate. Administrative and management support, skilled dedicated tutors, adequate space and facilities, and willing involved patients all help contribute to this learning culture. It is clear from my findings that these alone may not be enough, and that a whole team approach is important to help develop and maintain a culture of learning. It appears unlikely from my findings that a practice could support an excellent learning environment without this whole team approach, or the administrative and management support seen at Sunnybank. This culture is witnessed across the practice (albeit with occasional tensions and evidence of teams within teams, evidence perhaps of Trowler's idea of subcultures and tensions within learning environments: Trowler, 2008).

Sunnybank is an ‘expansive’ workplace offering recognition for learners, individual support, high levels of organisation and an opportunity to explore and develop identity (Evans et al., 2006, Fuller and Unwin, 2003). These positive characteristics are similar to the best ‘expansive learning climates’ described by Boor and colleagues in her work on Dutch hospital wards (Boor et al., 2007).

In Wenger’s terms Sunnybank could be described not as a community of practice, for there are several within the practice, but as a ‘learning community’ (Wenger, 1998). Learning communities allow communities of practice to flourish. They have a learning culture, a self awareness, an interaction with other communities. There is a dynamic interaction between groups of learners, an exploration of boundaries which leads to negotiation and development of identity. The whole community becomes defined by its learning (rather than learning remaining a peripheral activity). This description appears to fit perfectly with the various strengths of learning at Sunnybank, including the tension witnessed between different professional groups, within learners groups and at the boundary of clinical and educational work. As one GP suggested: “education is part and parcel of what we do”.

Whether the learner groups and professional groups within Sunnybank are best termed communities of practice (with the implication of shared history, belonging and trajectory: Wenger 1998) or teaching and learning regimes (with the implication of transience and dynamism: Trowler 2008) depends on the groupings involved. The former fits vocational learners perfectly; the latter has much in common with transient learners. What is clear however is that the theory of social learning and the idea that meaningful participation, engagement and social interaction fuel learning fits very well with the findings from the case study.

The findings offer a suggestion for a definition of being a teaching practice from the perspective of clinical learners and the administrative support team. My work would suggest a teaching practice would include various core features:

- Learning architecture: space and facilities for formal learning, space and design for informal interaction;
- Learning support: administrative and management involvement and enthusiasm for learning;
- Patient support: availability, involvement and understanding of patients to engage with learning activities;
- Opportunities for peer and professional support: a range of clinical learners, perhaps across various professions;
- Skilled tutors: a range of dedicated and skilled tutors or teachers;
- A high quality clinical environment.

Many of these are core features in any assessment process for teaching or training practices (e.g. Cotton et al., 2009). Where they differ from the literature is in the explicit suggestion that learning architecture is likely to be important to allow informal but essential interaction to occur; that learning would be enhanced by having a range of learners of differing levels of experience and background; and that a high quality clinical environment may be essential for a high quality teaching environment.

My work goes beyond the easily measurable by exploring what appeared to hold the attention of clinical learners at Sunnybank; the culture of learning, the respect amongst learners, teachers and professional groups, the relationships with patients, the whole practice commitment, the almost indefinable extras of vibrancy, fun and passion for education. These offer a challenge to those involved with primary care education. How is it possible to measure the (almost) immeasurable? How to develop these features where they are absent? How to avoid a reductionist approach which values facilities and quantifiable assets above what truly inspires clinical learning?

Finally, how can excellent teaching practices, such as that seen in this case study but almost certainly replicated across primary care, survive the wholesale changes currently affecting the profession? These changes were reviewed earlier. They include a diversity of provider models in place of the traditional GP partner owned

practices; new professional roles and tensions as the workforce diversifies; the rise of salaried professionals; extended professional GP training; and a GP contract which emphasises measurable clinical outcomes above values of continuity and caring.

Some suggest these changes threaten the very fabric of general practice, and its role in education; others argue that the 'industrialisation' of primary care will reduce autonomy and the individual entrepreneurial approach in general practice which helps build and sustain communities of practice (Iliffe, 2008).

The importance of practice history, pride and individualism in practices is well illustrated at Sunnybank. Equally however the new changes bring enormous educational benefits e.g. a greater range of learners can be taught by a greater range of professionals, with those professionals at different stages of their career (foundation year doctors, salaried GPs, nurse practitioners). In many ways this opens the door for communities of practices within teaching practices; for social learning, for peer learning and peer support, for career pathways and trajectory in learning not previously there.

7.7 Concluding remarks

7.7.1 Reflections on the research: relevance and utility

Trustworthiness has, as discussed earlier, many elements. I have reflected already on the dependability, credibility, transferability and confirmability of this research. The final element is application, or utility. Will this research make a useful contribution to the theory of clinical learning? Will it contribute to the literature on clinical learning in practice settings? These questions can only be answered with the benefit of hindsight. I will however speculate from my personal experience and perspective.

Much of what I have found isn't new or surprising. That clinical learning should occur through engagement, and that engagement might develop from recognition, respect, relevance and emotion could perhaps be deduced from experience and

common sense. What I offer though is evidence for the theory from an in depth exploration of a real case, and from the reports of a wide range of clinical learners from what appears in many ways a typical teaching practice. The utility of the theory lies perhaps in its ordinariness and common sense. It offers an accessible explanation of how social learning might occur in a real practice, through engagement in a setting similar to communities of practice but at the same time one richer than Lave and Wenger's model suggested. The word "richer" is used deliberately. Firstly my case study is more complex that the apprenticeships and communities in Lave and Wenger's work: a greater range of learners, the added dimension of patients and clinical work alongside learning. Second the influence of wider cultural issues are acknowledged and illustrated powerfully: internal culture and professional variation, external culture and the influence of government and professional policy changes on clinical learning. The result is an in depth insight not previously offered in the literature, formed into a theory of learning which has appeared plausible when fed back to participants and which I suggest may be of use to other clinical learners.

Those responsible for clinical learning, from tutors to curriculum designers, may wish to reflect on the importance from this study of the elements of engagement. These offer lessons at various levels. Practices may wish to concentrate on improving recognition of learners (from induction, to introductions, to feedback, to a concentration on pastoral and personal matters as these do appear to strongly support engagement and so learning). Practices may also wish to concentrate on the relevance of their teaching approach to the curriculum, which is self evident perhaps but according to the findings and the literature often overlooked (in general practice and certainly in hospital practice). Those identifying and developing teaching practices may wish to concentrate on respect: are we choosing high quality practices in the first instance, and are we assessing practices for equality and markers of respect? (What these markers are needs testing beyond the context of the study but I suggest they include how colleagues interrelate, how meetings are organised, how clinical staff relate to learners and patients). Finally my findings suggest engagement is enhanced through "going the extra mile". Everyone can aspire to excellence, and

through seeking excellence a teaching practice is more likely to engage learners and maximise learning.

7.7.2 Further work needed, and planned

A single case study such as this research gains in depth but loses in breadth. I have suggested ideas that can be generalised to theory, and made references where further work is needed to substantiate points arising from the findings.

The possible range of follow on work is substantial. That is a strength of qualitative research. I suggest, and hope to pursue, three strands of research suggested by the findings of this thesis:

- Do the findings from this study appear relevant in other GP teaching practices and across a range of clinical learners? Does the proposed model of clinical learning appear relevant? Are the findings from this case study transferable to a wider setting? It should be possible to test this premise with a wider qualitative study or via a survey of practices and clinical learners.

- Does the definition and ethos of a teaching practice revealed in this study appear relevant, and indeed helpful, as a concept to clinical learners in other teaching practices? This could be explored by relaying the findings from this study to other teaching practices and clinical learners, using qualitative research methods or a wider survey (or both).

- Would a new model be useful in allowing evaluation of the learning environment in primary care or elsewhere; including a way to judge engagement and its component parts? Such a model could be developed from this research, piloted with a range of clinical learners and subsequently tested on a wider stage.

There are many other questions which offer possibilities for further research into clinical learning. It would be interesting to explore further the ideas of authenticity

(reality) and immediacy in patient encounters which appeared from my research to enhance clinical learning. Equally important is the question of how patients are involved with, affected by and can help to support clinical learning. Research in this area is ongoing at Sunnybank. I hope the findings of that research will help add to the conclusions from findings of this case study, and offer further insights into how clinical learning occurs in primary care and the nature of being a teaching practice.

7.7.3 Final summary

One explanation of adult learning is provided by social learning theory: legitimate peripheral participation in meaningful experience and through belonging, negotiating meaning, and developing identity within a community of practice. This theory of learning is enhanced when considered in a wider context of power relations and learning culture, and appeared to be an ideal theoretical framework for exploring clinical learning in the small microcosm of a primary care teaching practice. I have used this framework to explore how clinical learning occurs in this important contemporary clinical setting, one increasingly relevant for within healthcare in the UK and overseas, and one supporting an increasing number of clinical placements within medicine, nursing and allied professions.

I have presented the findings of a single descriptive case study of clinical learning within a purposefully chosen teaching practice with a range of clinical learners. The case study offers an in depth perspective on learning, unique in the clinical literature.

My findings suggest clinical learning appears to occur through engagement and opportunity. Engagement in learning is made up of four elements: recognition, respect, relevance and emotion. The elements are remarkably consistent across learner groups. Engagement appears possible through these elements even in the absence of meaningful participation, belonging or a clear trajectory of learning. Opportunities for clinical learning include those where patient encounters are made meaningful through the authenticity (reality) that is reinforced by the social context of illness, and the immediacy of hearing patient narratives *de novo*. Opportunity also

includes the chance to learn with and from peers and professional colleagues. These findings offer a coherent theory of clinical learning in this setting, albeit one which now needs exploration across other teaching practices. The findings are consistent with existing work on social learning in other settings, but add to the literature.

The teaching practice studied in the case study is not dissimilar to others described in the primary care literature, but this case study offers a far more detailed exploration of the elements which contribute to learning. These elements include a whole practice support for learning, a skilled and committed clinical and educational workforce and a more indefinable additional element which is best summarised as a passion for education. I describe an expansive learning environment and a clinical learning community which supports a variety of learners across different levels of experience and different professions. My research offers a detailed insight into how clinical learning occurs in primary care, and what it means to be a teaching practice.

Bibliography

ALTHEIDE, D. & JOHNSON, J. 1998. Criteria for assessing interpretive validity in qualitative research. Collecting and interpreting qualitative materials. In Denzin, NK and Lincoln YS 1998. *In:* DENZIN, N. & LINCOLN, Y. (eds.) *Handbook of Qualitative Research.* 2nd ed. Thousand Oaks, California: Sage Publications.

ARGYRIS, C. & SCHON, D. 1974. *Theory in practice: Increasing professional effectiveness* San Francisco, Jossey-Bass.

BALINT, M. 1986. *The doctor, his patient and the illness,* Edinburgh, Churchill Livingstone.

BAXTER MAGOLDA, M. B. 1999. *Creating contexts for learning and self-authorship: constructive-developmental pedagogy,* Nashville, Vanderbilt University Press.

BECKER, H. S., GEER, B., HUGES, E. C. & STRAUSS, A. L. 1961. *Boys in white: student culture in medical school,* Chicago, University of Chicago Press.

BENNER, P. E. 1984. *From novice to expert : excellence and power in clinical nursing practice,* Menlo Park, Calif, Addison-Wesley Pub. Co., Nursing Division.

BENNER, P. E., HOOPER-KYRAKIDIS, P. & STANNARD, D. 1999. *Clinical wisdom and interventions in critical care : a thinking-in-action approach* Philadelphia, Saunders.

BENSON, J., EMERY, J., QUINCE, T., HIBBLE, A. & FANSHAWE, T. 2005. Impact on patients of expanded general practice based student teaching: observational and qualitative study. *BMJ,* 331**,** 89-92.

BLIGH, J. 1999. Is it time for a community-based medical school in the UK? *Medical Education,* 33**,** 315-315.

BLOCK, S., CLARK-CHIARELLI, N., PETERS, A. & SINGER, J. 1996. Academia's chilly climate for primary care. *Journal of the American Medical Association,* 276**,** 277-82.

BOADEN, N. & BLIGH, J. 1999. *Community-based medical education: towards a shared agenda for learning,* London, Arnold.

BOOR, K., SCHEELE, F., VLEUTEN, C. P. M. V. D., SCHERPBIER, A. J. J., TEUNISSEN, P. W. & SIJTSMA, K. 2007. Psychometric properties of an instrument to measure the clinical learning environment. *Medical Education,* 41**,** 92-99.

BOOR, K., SCHEELE, F., VLEUTEN, C. P. M. V. D., TEUNISSEN, P. W., BREEJEN, E. M. E. D. & SCHERPBIER, A. J. J. A. 2008. How undergraduate clinical learning climates differ: a multi-method case study. *Medical Education,* 42**,** 1029-1036.

BOUD, D., KEOGH, R. & WALKER, D. 1985. *Reflection: turning experience into learning,* London, Kogan Page.

BOUD, D. & MILLER, N. 1996. *Working with Experience: Animating Learning,* New York, Routledge.

BOWLING, A. 2002. *Research methods in health: investigating health and health services,* Buckingham, Open University Press.

Bibliography

BRITTEN, N. 1996. Qualitative interviews in medical research. *In:* POPE, C. & MAYS, N. (eds.) *Qualitative Research in Healthcare.* Malden, Mass: Blackwell Publishing.

BROOKFIELD, S. 1980. *The Skillful Teacher* San Francisco, Jossey Bass.

BRYANT, P., HARTLEY, S., COPPOLA, W., BERLIN, A., MODELL, M. & MURRAY, E. 2003. Clinical exposure during clinical method attachments in general practice. *Medical Education,* 37**,** 790-793.

BUCHANAN, J. & LANE, P. 2008. Grouping specialty registrars in practice placements: a qualitative study. *Education for Primary Care,* 19**,** 143-150.

BURKITT, I., HUSBAND, C., MACKENZIE, J., TORN, A. & R, C. 2001. Nurse Education and Communities of Practice. London: English National Board for Nursing Midwifery and Health Visiting.

CANTILLON, P., MACDERMOTT, M., CANTILLON, P. & MACDERMOTT, M. 2008. Does responsibility drive learning? Lessons from intern rotations in general practice. *Medical Teacher,* 30**,** 254-9.

COFFEY, A. & ATKINSON, P. A. 1996. *Making sense of qualitative data: complementary research strategies,* Thousand Oaks; CA, Sage Publications.

COHEN, L., MANNION, L. & MORRISON, K. 2000. *Research methods in education* London Routledge.

COTTON, P., SHARP, D., HOWE, A., STARKEY, C., LAUE, B., HIBBLE, A. & BENSON, J. 2009. Developing a set of quality criteria for community-based medical education in the UK. *Education for Primary Care,* 20**,** 143-151.

CRANTON, P. 1994. *Understanding and Promoting Transformative Learning A Guide for Educators of Adults,* San Francisco, Jossey- Bass Publishers.

DAHAN, R., REIS, S., VAN RAALTE, R. & HERMONI, D. 2001. Changing the approach for teaching medical students in the primary care setting. *Education for General Practice,* 12**,** 41 - 46.

DENZIN, N. K. & LINCOLN, Y. S. 2000. *Handbook of Qualitative Research,* London, Sage.

DEPARTMENT FOR EDUCATION & SKILLS 2005. *Higher standards, better schools for all: more choice for parents and pupils/Department for Education and Skills; foreword by Tony Blair,* London:, Stationery Office.

DEPARTMENT OF HEALTH 2000. The NHS plan: a plan for investment: a plan for reform. London: Stationery Office.

DEPARTMENT OF HEALTH 2006. Our health, our care, our say: a new direction for community services. London: Stationery Office.

DEPARTMENT OF HEALTH 2008. High Quality Care for All. Next stage review, final report. London: The Stationery Office.

DEPARTMENT OF HEALTH. 2009. *Healthcare* [Online]. Available: <http://www.dh.gov.uk/en/Healthcare/Primarycare/Primarycarecontracting/QOF/DH_4125653> [Accessed 2 September 2009].

DEUTSCH, S. 1997. Community-based teaching: a guide to developing education programmes for medical students and residents in the practitioner's office. *Academic Medicine,* 68**,** 336 - 339.

DICK, M.-L., KING, D., MITCHELL, G., KELLY, G., BUCKLEY, J. & GARSIDE, S. 2007. Vertical Integration in Teaching and Learning (VITAL): an approach to medical education in general practice. *The Medical Journal of Australia,* 187**,** 133-5.

DOLMANS, D. H. J. M., WOLFHAGEN, I. H. A. P., HEINEMAN, E. & SCHERPBIER, A. J. J. A. 2008. Factors adversely affecting student learning in the clinical learning environment: a student perspective. *Education for Health,* 21**,** 10.

DORNAN, T., BOSHUIZEN, H., KING, N. & SCHERPBIER, A. 2007. Experience-based learning: a model linking the processes and outcomes of medical students' workplace learning. *Medical Education,* 41**,** 84-91.

DREYFUS, S. E. & DREYFUS, H. L. 1980. A five stage model of the mental activities involved in directed skill acquisition. Unpublished report supported by the Air Force Office of Scientific Research (AFSC) USAF. *University of California at Berkeley*

EL-BAGIR, M. & AHMED, K. 2002. What is happening to bedside teaching? *Medical Education,* 36**,** 1185-1188.

ENGLISH NATIONAL BOARD FOR NURSING MIDWIFERY AND HEALTH VISITING & DEPARTMENT OF HEALTH 2001. Placements in Focus: Guidance for education in practice for health care professionals. *Developments in multiprofessional education.* London.

ERAUT, M. 2004. *Developing Professional Knowledge & Competence* London, The Falmer Press.

ERIKSON, E. 1968. *Youth and Crisis,* New York, Norton.

EVANS, K., HODKINSON, P., RAINBIRD, H. & UNWIN, L. 2006. *Improving Workplace Learning,* London, Routledge.

EZZY, D. 2002. *Qualitative analysis: Practice and innovation,* London, Routledge.

FERNALD, D. H., STAUDENMAIER, A. C., TRESSLER, C. J., MAIN, D. S., O'BRIEN-GONZALES, A. & BARLEY, G. E. 2001. Student perspectives on primary care preceptorships: enhancing the medical student preceptorship learning environment. *Teaching & Learning in Medicine,* 13**,** 13-20.

FINE, B. & SEABROOK, M. 1996. GPs' attitudes towards increased medical education in the community. *Education for General Practice,* 7**,** 42-47.

FIRTH, A. & WASS, V. 2007. Medical students' perceptions of primary care: the influence of tutors, peers and the curriculum. *Education for Primary Care,* 18**,** 364 - 372.

FLICK, U. 2006. *An introduction to qualitative research,* London SAGE.

FREIRE, P. 1970. *Pedagogy of the Oppressed,* New York, Herder and Herder.

FULLER, A., HODKINSON, H., HODKINSON, P. & UNWIN, L. 2005. Learning as peripheral participation in communities of practice: a reassessment of key concepts in workplace learning *British Educational Research Journal,* 31**,** 49 - 68.

FULLER, A. & UNWIN, L. 2003. Learning as apprentices in the contemporary UK workplace: creating and managing expansive and restrictive participation. *J Educ Work,* 16**,** 407 - 426.

GENERAL MEDICAL COUNCIL 1993. Tomorrow's Doctors: Recommendations on undergraduate medical education. London: General Medical Council.

GENERAL MEDICAL COUNCIL 2003. Tomorrow's doctors: Recommendations on undergraduate medical education. London: General Medical Council.

GENERAL MEDICAL COUNCIL 2009. Tomorrow's Doctors: Outcomes and standards for undergraduate medical education. London: General Medical Council.

GIBBS, T. 2004. Community-based or tertiary based medical education: so what is the question? . *Medical Teacher,* 26**,** 589-90

GLASER, B. G. & STRAUSS, A. L. 1967. *The discovery of grounded theory : strategies for qualitative research* New York, Aldine de Gruyter.

GLASGOW, N. & TRUMBLE, S. 2003. Final report on the case studies on vertical integration for the AAAGP/ADGP GPET working party. Canberra: General Practice and Training, 2003 *Medical Journal of Australia,* 187**,** 135-136.

GOLDACRE, M. J., TURNER, G. & LAMBERT, T. W. 2004. Variation by medical school in career choices of UK graduates of 1999 and 2000. *Medical Education,* 38**,** 249-258.

GOPEE, N., TYRRELL, A., RAVEN, S., K., T. & HARI, T. 2004. Effective clinical learning in primary care settings. *Nursing Standard 2004; 18 (37) 33-37*.

GORMLEY, G. & COLLINS, K. 2007. Letter to the Editor. *Education for Primary Care,* 18**,** 659-660.

GRANT, A. & ROBLING, M. 2006. Introducing medical student teaching into general practice: an action research study. *Medical Teacher,* 28**,** 192-197.

GRAY, J. & FINE, B. 1997. General practitioner teaching in the community: a study of their teaching experience and interest in undergraduate teaching in the future. *British Journal of General Practice,* 47.

GRAYSON, M., KLEIN, M., LUGO, J. & VISINTAINER, P. 1998. Benefits and Costs to Community-Based Physicians Teaching Primary Care to Medical Students. *Journal of General Internal Medicine,* 13**,** 485 - 488.

HABBICK, B. F. & LEEDER, S. R. 1996. Orienting medical education to community need: A review. *Medical Education,* 30**,** 163-171.

HABERMAS, J. 1970. *Erkenntnis und Interesse. English Knowledge and Human Interests* Boston, Mass, Beacon Press.

HAFFLING, A. & HAKANSSON, A. 2008. Patients consulting with students in general practice: Survey of patients' satisfaction and their role in teaching *Medical Teacher,* 30**,** 622-629.

HAMPSHIRE, A. 1998. Providing early clinical experience in Primary Care. *Medical Education,* 32**,** 495 - 501.

HARTLEY, S., MACFARLANE, F., GANTLEY, M. & MURRAY, E. 1999. Influence on general practitioners of teaching undergraduates: qualitative study of London general practitioner teachers. *BMJ,* 319**,** 1168 - 1171.

HILDEBRAND, D. 2008. *Dewey: A Beginner's Guide (Beginner's Guides (Oneworld))* Oxford, Oneworld Publications

HODKINSON, P., BIESTA, G. & JAMES, D. 2007. Understanding learning cultures. *Educational Review,* 59**,** 415 - 427.

HODKINSON, P., BIESTA, G. & JAMES, D. 2008. Understanding Learning Culturally: Overcoming the Dualism Between Social & Individual Views of Learning. *Vocation and Learning,* 1**,** 27 - 47.

HOWE, A., BILLINGHAM, K. & WALTERS, C. 2002. In our own image-a multidisciplinary qualitative analysis of medical education. *J Interprof Care,* 16**,** 379-89.

HOWE, A. & IVES, G. 2001. Does community-based experience alter career preference? New evidence from a prospective longitudinal cohort study of undergraduate medical students. *Medical Education,* 35**,** 391-397.

ILIFFE, S. 2008. *From General Practice to Primary Care: the industrialisation of family medicine,* Oxford, Oxford University Press.

JARVIS, P. 1987. *Adult Learning in the Social Context,* London, Croom.

JOHNSTON, B. & BOOHAN, M. 2000. Basic clinical skills: don't leave teaching to the teaching hospitals. *Medical Education,* 34**,** 692-699.

JONES, R. & STEPHENSON, A. 2008. Quality assurance of community based undergraduate medical curricula: a cross section survey *Education for Primary Care,* 19**,** 135-142.

KALANTAN, K., PYRNE, N., AL-FARIS, E., AL-TAWEEL, A., AL-ROWAIS, N. & ABDUL, G. H. 2003. Students' perceptions towards a family medicine attachment experience. *Education for Health,* 16**,** 357 - 365.

KAPLAN, K., MASTER, P., LEONG, S., WALLEN, B., LEDERER, S. & HAWKINS, A. 1999. Evaluating students on an interdisciplinary primary care clerkship at the Pennsylvania State University College of Medicine. *Academic Medicine,* 74**,** S67 - S69`.

KEEN, J. & PACKWOOD, T. 1996. Case Study Evaluation. *In:* POPE, C. & MAYS, N. (eds.) *Qualitative Research in Health Care.* London: BMJ Publishing.

KENNEDY, T. J. T. & LINDGARD, L. A. 2006. Making sense of grounded theory in medical education. *Medical Education,* 40**,** 101-108.

KITZINGER, J. 1995. Introducing Focus Groups. *BMJ,* 311**,** 299-302.

KNOWLES, M. S. 1980. *The Modern Practice of Adult Education; From Pedagogy to Androgogy,* New York, Cambridge Books.

KOLB, D. A. 1984. *Experiential learning: experience as the source of learning and development* New York, Prentice-Hall.

LAUNER, J. M. N. 2002. *Narrative-based primary care: a practical guide,* Abingdon, Radcliffe Medical Press.

LAVE, J. & WENGER, E. 1991. *Situated learning: legitimate peripheral participation,* Cambridge Cambridge University Press.

LEININGER, M. 1992. Current issues, problems and trends to advance qualitative paradigmatic research methods for the future. *Qualitative Health Research,* 2**,** 392-415.

LI, L., GRIMSHAW, J., NIELSEN, C., JUDD, N., COYTE, P. & GRAHAM, I. 2009. Use of communities of practice in business and healthcare sectors: A systematic review *Implementation Science* [Online]. Available: http://www.implementationscience.com/content/4/1/27.

LINCOLN, Y. S. 1985. *Naturalistic inquiry* Beverly Hills, California, Sage Publications.

LUCAS, B. & PEARSON, D. 2005. Learning medicine in primary care: medical student perceptions of final year clinical placements. *Education for Primary Care,* 16**,** 440-449.

MASLOW, A. 1970. *Motivation and personality,* New York, Harper Collins.

MCWHINNEY, I. 1997. *A Textbook of Family Medicine,* Oxford, OUP.

MEAD, G. 1962. *Quoted in Steier F (1991) Research and Reflexivity,* London, Sage.

MELIA, K. M. 1987. *Learning and working: the occupational socialization of nurses* London, Tavistock.

MERRIAM, S. B. 1988. *Case Study Research in Education,* San Francisco, Jossey-Bass.

MEZIROW, J. D. 1991. *Transformative dimensions of adult learning* San Francisco Jossey-Bass.

MILES, M. B. & HUBERMAN, A. M. 1994. *Qualitative data analysis: an expanded sourcebook*, London, Sage Publications.

MILLER, J. & GLASSNER, B. 2004. The "inside" and the "outside": finding realties in interviews. . *Silverman D.*

MORRISON, J. & MURRAY, T. 1996. Career preferences of medical students: influence of a new four-week attachment in general practice. *British Journal of General Practice,* 46**,** 721 - 725.

MULROONEY, A. 2005. Development of an instrument to measure the Practice Vocational Training Environment in Ireland. *Medical Teacher,* 27**,** 338-342.

MURRAY, E., TODD, C. & MODELL, M. 1997. Can general internal medicine be taught in general practice? An evaluation of the University College London model. *Medical Education,* 31**,** 369 - 374.

NEIGHBOUR, R., - 1996. *The inner apprentice : an awareness-centred approach to vocational training for general practice,* Dordrecht, Petroc Press; New edition (26 Feb 1996)

NURSING AND MIDWIFERY COUNCIL 2004. Standards of Proficiency for Pre-registration Nursing Education.

NURSING AND MIDWIFERY COUNCIL 2009. Standards for Preregistration Midwifery Education.

O'SULLIVAN, M., MARTIN, J. H. & MURRAY, E. 2000. Student's perceptions of the relative advantages and disadvantages of community-based and hospital-based teaching: a qualitative study. *Medical Education,* 34**,** 648 - 655.

OSWALD, N., ALDERSON, T. & JONES, S. 2001. Evaluating primary care as a base for medical education: the report of the Cambridge Community-based Clinical Course. *Medical Journal,* 35**,** 782-8.

PENDLETON, D., SCHOFIELD, T., TATE, P. & HAVELOCK, P. 1984. *The Consultation: an Approach to Learning & Teaching,* Oxford, Oxford University Press.

PENUEL, W. & WERTSCH, J. 1995. Vygotsky and Identity Formation: A Sociocultural Approach *Educational Psychologist,* 30**,** 83 -92.

PIAGET, J. 1972. *The Psychology of the Child,* New York, Basic Books.

POPE, C. & MAYS, N. 1996. Qualitative Research in Health Care *BMJ Publishing: London*.

PRING, R. A. 2004. *Philosophy of educational research* London Continuum.

QUINCE, T., BENSON, J., HIBBLE, A. & EMERY, J. 2007. The impact of expanded general practice-based student teaching: the practices' story. *Education for Primary Care,* 18**,** 593-601.

RABINOWITZ, H. K., BABBOTT, D., BASTACKY, S., PASCOE, J. M., PATEL, K. K., PYE, K. L., RODAK, J., VEIT, K. J. & WOOD, D. L. 2001. Innovative approaches to educating medical students for practice in a changing health care environment: The National UME-21 project. *Academic Medicine,* 76**,** 587-597.

RCGP 2007. The Future Direction of General Practice. London: Royal College of General Practitioners.

RCGP. 2009. *Patient Information* [Online]. Available: <http://www.rcgp.org.uk/patient_information/what_is_general_practice.aspx> [Accessed 2 September 2009].

ROGERS, C. 1967. *Freedom to Learn,* Columbus, Ohio, Merrill.

SAPC 2002. New Century, New Challenges. A report from the Heads of Departments of General Practice and Primary Care in the Medical Schools of the United Kingdom.

SCHON, D. 1983. *The Reflective Practitioner,* New York, Basic Books.

SCOTT, J. & MARSHALL, G. 1998. *Oxford Dictionary of Sociology* Oxford, Oxford University Press.

SHEEHAN, D., WILKINSON, T. & BILLETT, S. 2005. Interns' participation and learning in clinical environments in a New Zealand hospital. *Acad Med,* 80**,** 302 - 308.

SILVERMAN, D. 2005. *Qualitative research: theory, method and practice,* London Sage Publications.

SILVERSTONE, Z., WHITEHOUSE, C., WILLIS, S., MCARDLE, P., JONES, A. & O'NEILL, P. A. 2001. Students' conceptual model of a good community attachment. *Medical Education,* 35**,** 946-56.

SINCLAIR, S. 1997. *Making doctors: an institutional apprenticeship,* Oxford, Berg.

SMITH, V. 2004. A learner-centred model of training practice inspection: In-depth interview study of GP registrars' perceptions of the learning climate of their training year. *Education for Primary Care,* 15**,** 361-369.

SMITH, V. C. & WIENER-OGILVIE, S. 2009. Describing the learning climate of general practice training: the learner's perspective. *Education for Primary Care,* 20**,** 435-40.

SPLITTER, L. 2008. Authenticity and Constructivism in Education. *Studies in Philosophy and Education,* 28**,** 135-151.

STEWART, D. W. & SHAMDASANI, P. N. 1990. *Focus groups : theory and practice* London Sage Publications.

STRAUSS, A. L. & CORBIN, J. 2008. *Basics of qualitative research : techniques and procedures for developing grounded theory,* Thousand Oaks, California, Sage Publications.

TEUNISSEN, P., SCHEELLE, F., SCHERPBIER, A., VAN DE VLEUTEN, C., BOOR, K., VAN LUJIIK, S. & VAN DIEMEN-STEENVOORDE, J. 2007. How residents learn: qualitative evidence for the pivotal role of clinical activities. *Medical Education,* 41**,** 763 - 770.

THE NHS INFORMATION CENTRE. 2009. Available: <http://www.ic.nhs.uk/webfiles/publications/nhsstaff2008/gp/Bulletin%20Sept%202008.pdf> [Accessed 19 August 2009].

TOOKE, J., ASHTLANY, S., CARTER, D., COLE, A., MICHAEL, J., RASHID, J., SMITH, P. C., TOMLINSON, S. & PETTY-SAPHON, K. 2008. Aspiring to Excellence: Independent Inquiry Into Modernising Medical Careers. London: Department of Health.

TROWLER, P. 2008. *Cultures and change in higher education: theories and practices,* Basingstoke, Palgrave Macmillan.

UNIVERSITY OF LEEDS. 2009. *Data obtained via Paul Elam, Academic Unit of Primary Care*. Personal communication 5 October 2009.

USHERWOOD, T. 1999. *Understanding the consultation : evidence, theory and practice,* Buckingham, Open University Press.

VYGOTSKY, L. S. 1978. *Mind in society : the development of higher psychological processes,* Cambridge, Mass., Harvard University Press.

WENGER, E. 1998. *Communities of practice: learning, meaning, and identity,* Cambridge, Cambridge University Press.

WILKINSON, S. 2005. Focus Group Research *In:* SILVERMAN, D. (ed.) *Qualitative research: theory, method and practice*
2nd ed. Sage Publications, London.

WOLF, S. 1997. *Educating Doctors,* London, Transaction Publishers.

WORLEY, P., ESTERMAN, A. & PRIDEAUX, D. 2004. Cohort study of examination performance of undergraduate medical students learning in community settings. *BMJ: British Medical Journal,* 328**,** 207-209.

YIN, R. K. 2003a. *Applications of case study research,* Thousand Oaks, California, Sage Publications.

YIN, R. K. 2003b. *Case study research: design and methods,* Thousand Oaks, California, Sage Publications.

YORKSHIRE DEANERY. 2009. *Data obtained via Dr Mark Purvis, Director of Primary Care Education, Yorkshire Deanery, University of Leeds.* Personal communication 5 October 2009.

Appendices:

Appendix 1: NHS ethical & governance approval

Appendix 1:1 Research Information Sheet

Bradford & Airedale Teaching Primary Care Trust
University of Bradford: Division of Community and Primary Care

RESEARCH INFORMATION SHEET

Learning and teaching in primary care

This is an invitation to take part in an interview/focus group interview. The purpose of the study is to explore the nature of clinical learning in primary care through an in depth exploration of the experiences and views of a range of students, learners, teachers, and staff at a single teaching practice. Please read the following information in order to help you decide whether or not you wish to take part.

WHAT IS INVOLVED?

You are invited to take part in a single interview/ focus group interview. Single interviews will be face to face and last approximately 40 minutes. Focus group interviews will last a similar time but be shared with approximately 10 colleagues. The interviews will be conducted/moderated by Dr David Pearson or Dr Beverley Lucas. (Interviews with medical students, other learners and staff involved directly with teaching will be conducted by Dr Lucas. Other individuals/groups will normally be interviewed by Dr Pearson.)

In either case the interviewer/group moderator will ask general questions regarding your experiences and views of learning and teaching within general practice, focusing mainly on your current experiences in this practice. The questions will broadly follow a semi-structured topic guide based on recent literature and publications pertaining to medical student education. The interview will last approximately 40 minutes, and will be audio-recorded. If you decide to take part in the interview, you will be asked to sign a consent form.

WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?

The interview will be audio recorded and will re-played only to allow transcription. No names will be associated with the transcript. The transcript, in this anonymous form, will be accessed only by Dr David Pearson (who is leading the analysis of findings) and Dr Beverley Lucas who is assisting in this task). Transcripts will be offered to participants should you wish to check the contents. Anonymised transcripts will be kept to allow verification of data on request to named individuals where publication is considered. The final report, containing anonymous quotations, will be available at the end of the study. On completion of the evaluation, the recording will be erased. The information from the report may be published, but your name will not be associated with the research. Any quotations will be published only in anonymised form.

WHAT ARE THE POSSIBLE DISADVANTAGES OF TAKING PART?

The interview will take approximately 40 minutes, which will place a commitment on your time.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

Participants of this study will contribute to building the body of knowledge regarding clinical learning and teaching within primary care. During interviews or group interviews participants may find it useful to reflect on their experiences and explore their views regarding this subject, and certainly for students, learners and teachers this may help generate ideas and discussion relevant to their study or careers. The findings of the research will be fed back to the participants in a final report, via a local presentation and via peer reviewed journal articles.

WHAT WILL HAPPEN IF I DECIDE NOT TO TAKE PART IN THIS STUDY?

Potential participants are completely free not to take part in the study. Non-participation will in no way affect the results of any assessment or tutor reports (students/learners), nor of relations with the Academic Unit of Primary Care/ TPCT (clinicians & staff).

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

The results of the study will be published in a final report. Dissemination of the findings will include local presentation, and the potential for wider dissemination through conference presentations, posters or peer reviewed journal publications.

WHO IS ORGANISING THE STUDY?

The study is being organised by Dr David Pearson at the Academic Unit of Primary Care, University of Leeds, with the help of Dr Beverley Lucas of the University of Bradford. The research is being supported by Bradford & Airedale Teaching PCT.

REVIEW OF THE STUDY

Ethical approval is been granted by the Local Regional Ethics Committee, and for student participation from the University of Leeds medical school.

RESEARCH GOVERNANCE AND INDEPENDENT ADVICE ON THIS STUDY

Bradford & Airedale Teaching PCT are responsible for overseeing the quality of this study and protecting the interests of participants. If you would like independent advice on the study or your potential role as a participant please contact:

Linda Dobrzanska
Research Co-ordinator
Bradford & Airedale Teaching PCT
Douglas Mill
Bowling Old Lane
BRADFORD BD5 7JR
Linda.dobrzanska@bradford.nhs.uk 01274 237418

CONTACT FOR FURTHER INFORMATION

Dr David Pearson,
Head of Learning & Teaching
Academic Unit of Primary Care
d.j.pearson@leeds.ac.uk 0113 343 4183

Dr. Beverley Lucas Senior Lecturer, University of Bradford, Bradford School of Pharmacy, School of Life Sciences
01274 233495 Email: b.j.whitemoss@bradford.ac.uk

Appendix 1:2 Informed consent form

Bradford & Airedale Teaching Primary Care Trust
University of Bradford: Division of Community and Primary Care

RESEARCH CONSENT FORM

Project Title: Learning and teaching in primary care.
Project Lead: Dr David Pearson
Co-researcher: Dr Beverley Lucas
Interviewer/ focus group moderator: Dr David Pearson/Dr Beverley Lucas*

**** Interviews with medical students, other learners and staff involved directly with teaching will be conducted by Dr Lucas. Other groups will normally be interviewed by Dr Pearson***

The purpose of the study is to explore the nature of clinical learning and teaching within primary care setting. The proposed interview is one of a series to be conducted in this practice over a twelve month period with a variety of medical students, other learners, teachers and tutors, and with staff involved with teaching.

You are invited to take part in an interview/focus group interview (maximum 10 people) that will last approximately 40 minutes. During this interview, questions will be asked about your experiences and views regarding teaching and learning within the practice. The interview will be digitally recorded, and then transcribed. No names will be associated with the transcript. The transcript, in this anonymous form, will be shared with Dr David Pearson who is analysing and writing up the findings. Transcripts will be offered to participants should you wish to check its contents. The final report, containing anonymous quotations, will be available at the end of the study. On completion of the research, the digital recording will be erased. The information from the report may be published, but your name will not be associated with the research and all quotations from the research will be anonymised.

If you have questions relating to this project please do not hesitate to ask Dr Pearson or Dr Lucas.

This is to certify that I, ---------- (print name), **hereby agree to participate as a volunteer in the above named project.**

I hereby give permission to be interviewed and for the interview to be digitally audio recorded. I understand that, at the completion of the research, the recording will be erased. I understand that the information may be published, but my name will not be associated with the research.

I understand that I am free to deny any answer to specific questions and that I am free to withdraw my consent and terminate my participation at any time, without penalty.

I have been given the opportunity to ask questions about the project and that any such questions have been answered to my satisfaction.

_____	_____
Participant	**Interviewer/ Moderator**
Date	**Date**

Appendix 2: Interview schedule

TOPIC GUIDE AND INTERVIEW SCHEDULE

Introduction to participants:

Introduce main research questions and the reason for conducting the research: without suggesting any intended expected or "correct" answers.

Check consent form understood and signed.

"Today I would like to lead a discussion regarding learning and teaching activity within the practice: and explore your views within this area: for example; what your experiences are of learning or teaching in the practice, how learning and teaching activity helps define the practice or makes it what it is; how and where learning occurs in the practice; whether you get a sense of this being a teaching practice - and how we could define that.

All of you will be in some way involved as a learner or teacher within the practice, or sometimes both. I will ask questions about both areas.

As you have had explained before – all your responses will only be used for the purposes of this research, and would only be quoted in anonymised and non – attributable form.

Before we start I will therefore now turn on the recording device, and that will remain on for the duration of our discussion."

(Turn on recorder).

Let's begin with some general questions relating to your own involvement with learning within primary care and general practice:-

What are your *experiences* of clinical learning within primary care/general practice?

What are your *perceptions* of clinical learning within primary care/general practice?

How, in your experience, does the clinical learning in this setting differ from learning/teaching in other clinical settings?

If you are involved with teaching; how does teaching in this setting differ to teaching in other settings?

What does being a "teaching practice" mean to you?

Considering Sunnybank Medical Centre specifically …. some questions about your experiences as a learner.

"What are your general experiences of being involved with learning within the practice?"

And , specifically …

How do you learn? What triggers learning?

Where do you perceive learning to occur within the practice?

Think of a typical learning or teaching event:

- What does it involve?
- Who do you learn with/from?
- Prompt questions:
- Consider a recent learning event……
- Was learning part of a formal curriculum?
- Who did you learn with/from?
- How was learning encouraged?

Some specific questions about learning in the practice:

… learning from clinical experiences/events
Describe how you learn from patients and clinical events?
Is this learning encouraged?

Do you notice a difference between what you are taught and what you see in clinical practice? If so, give an example and how does this affect you?

… self directed learning
Is learning in general encouraged?
Are you encouraged to think and learn for yourself?

… .reflective learning
Have you been involved in reflective learning? Give an example.
Who/what stimulated this reflection?
Who/what made it into a learning experience?

… being part of the team
Do you feel part of the practice?
Do you feel part of a team within the practice?
Who is the "team"?
How/why is that so?
Please think of an example to illustrate your point.

… transformative learning

Think of your last memorable or significant learning event:
Who did you learn with/from?

What triggered the learning?
Why do you perceive this learning to be significant?
(Did it, for example, challenge deeply held beliefs, assumptions or values?)

Some questions about professional identity and role development

Does learning in the practice help develop your identity or role as a professional? (How/expand?)
Does learning in the practice contribute to your professional development? (How/expand?)

Some questions about the learning culture or climate within the practice

Questions for students/learners/trainees

- Do you feel part of the practice?
- If so, why?
- How were you made to feel welcome?
- How were you helped to integrate into the practice?
- Do you feel this helps contribute to your learning?

Questions for teachers/"embedded learners"

- How much do you think students/trainees gain their learning from direct teaching sessions and how much is from "informal learning" from peers/patients?
- Explain what you mean.

Questions for all

Can you think of any symbols that illustrate learning within the practice?

- do you feel the practice encourages learning?
- is it possible to describe a learning culture within the practice?
- what, if any, are the unwritten rules in the practice?
- if so, how does this culture influence the learning and teaching occurring within the practice?

Finally, about your personal learning:

- Do you feel your expectations or intentions to learn have been fulfilled?
- Does the practice environment stimulate or motivate you to learn?

Some questions about teaching in the practice …

Think about a time you were involved with teaching in the practice (whether formal or informal):

- Do you try to make learners feel part of the practice?
- If so, how do you do this?
- Why is this important?
- Do you feel it helps contribute to their learning?

… rewards or drawbacks for teaching in the practice

Could you say what the rewards, if any, are with being involved with teaching in the practice?

Please give examples:
- For you?
- For others in the practice?
- For the practice itself?

Could you describe the drawbacks, if any, teaching in the practice?

Please give examples:
- For you?
- For others in the practice?
- For the practice itself

… learning from patients, educating patients

Are you involved with patient education?

Does the practice encourage patients to learn? (How/expand)

Do you learn from patients? (How/expand)

Finally, I wish to revisit the idea of learning in communities, and of being a "teaching practice"…

"Communities of practice" are collections of individuals with a common interest who learn from each other through interaction and involvement.

… do you have a sense of this organisation being a "community of practice"?
If so, why?

Do you think it differs from other practices, or other learning environments, you have known? Please explain, and give examples.

And, last question …

Do you have a sense of Sunnybank being a "teaching practice"? How would you define that term?

Closing remarks:

Many thanks for your contribution and time.

Are there any further points from the discussion?

"Many thanks for participating in this discussion, and this research.
I will now turn off the recording device. All the discussion will be typed out and if anyone wishes to they see a transcript of what they have said you will be given an opportunity to do."